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INSTRUCTIONAL COURSES

Iatrogenic foreign bodies of the paranasal sinuses

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Iatrogenic intrasinusal foreign bodies represent a pathology continuously growing in the ENT practice. Although, in most of the cases the pathology isn't life threatening, several complications can occur if the patient doesn't receive the appropriate treatment. The penetration of the foreign bodies into the maxillary sinus during therapeutic manoeuvres on the superior dental arch is due to the particular anatomy of this region and/or local pathology.

Depending on the volume of the maxillary sinus, on the length of the dental roots and the height of the alveolar process, some of the lateral superior teeth come in close vicinity with the sinus floor (canine or first premolars teeth). The osseous tissue that separates the roots from the sinus cavity is about 0.5-4.5mm and sometimes at this level can appear small recesses between dental roots.

Iatrogenic foreign bodies that penetrate into the maxillary sinus (amalgam, dental burr, Kerr needles, tooth fragments, implants etc.) will eventually give birth to an inflammatory syndrome which, left untreated, can lead to severe complications - purulent rhinorrhea, pain in the maxillary sinus projection area and even oro-sinusal fistulae. Acute sinusitis can become chronic and expand to all sinuses with a high possibility of intracranial expansion.

Due to the long evolution of a chronic rhinosinusitis, in the sinus cavity can appear small nuclei on which salts can precipitate and form anthroliths, cysts or fungal sinusitis especially caused by *Aspergillum* spp.

The treatment for this kind of pathology was until recently osteotomy of the anterior antral wall, by Caldwell-Luc procedure with extraction of the foreign body. Since the emergence of the endoscopic sinus surgery, this has become the election technique for maxillary sinus foreign bodies removal because it is efficient, provides minimal trauma and the recovery period is shortened.

KEYNOTE LECTURES

Pathology of the ethmoidal turbinates - is endoscopic surgery the gold standard?

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Endoscopic surgery of the inferior turbinates is for sure one of the most efficient approach for several types of rhinitis with nasal obstruction. Usually the ethmoidal turbinates do not cause nasal obstruction but a lack of normal airflow in the nasal cavity and what is even worse a blockage of sinus drainage with chronic rhinosinusitis. That is why pathologies like middle and superior concha bulosa, mucocoele of middle or superior turbinate, paradoxically bent middle turbinate or hypertrophy of superior turbinate with sphenoethmoidal recess impairment find their gold-standard treatment in surgical endoscopic techniques.

Olfaction in minimal invasive surgery of the hypophysis

S. Albu

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The transsphenoidal surgical approach is the technique of choice for removal of pituitary tumors. Although complications associated with this approach have been widely discusses, there are scarce number of studies dealing with olfactory disturbances connected to pituitary surgery. This paper presents the pathology of olfactory loss associated with the transsphenoidal approach to the sella. A comparison is made between the microscopic and endoscopic approach to the pituitary tumors as it relates to olfactory function. We present our experience and discuss the current knowledge on the relationship among olfaction and pituitary surgery.

Up to date in OSAS diagnostic

Adriana Neagos

University of Medicine and Pharmacy Tg.Mures, ENT Department, Romania

Obstructive Sleep Apnea Syndrome (OSAS) is a very frequently but underdiagnoses disease, which affects the quality of life. OSAS is a chronic disease associated in many cases with obesity. Some studies demonstrate an association between OSAS hypertension, and metabolic diseases. OSAS affects 5-7% from male patients and 2-3% femal.

Currently, polysomnography is the standard method of diagnosing sleep obstructive sleep apnea, and the most commonly used treatments include long-term continuous airway pressure (CPAP) and surgical procedures to correct anatomical changes predisposing.

The associated comorbidities and the risks associated with used treatment, helps to undetstanding the sleep-related changes with respiratory physiology, and to develop new methods of preventing hypoventilation in susceptible population.

The ENT examination in association with polysomnography are important before establishing the surgical procedures. The ENT examination must to be completed with drug induced sleep endoscopy, when, it is necessary to perform the surgery.

The final outcome must to be improved quality of life in patients with OSAS.

Vocal fold surgery – twenty years experience. What have I learned?

V. Zainea

UMF “Carol Davila” Bucharest

IFACF-ORL Prof. Dr. Dorin Hociota, Bucharest

Vocal folds surgery implies a complex pathology which needs specific surgical techniques and technologies.

The aim of the present paper is to make a review of the pathology, surgical techniques and technologies used among 20 years experience in a tertiary unit/ a specialized clinical department.

The objective is to point out some remarks and considerations concerning the most frequent pathologies and the surgical solutions.

The method consists in analyzing selected clinical cases, presenting modern endoscopic diagnosis techniques (Video Contact Endoscopy, Narrow Band Imaging, SPIZE technology) with the specifications of the surgical solutions (surgical procedure).

The result concerns in getting some practical rules and hints in order to get more conservative procedure and to fulfill in this way the aim of the surgical procedure.

KEYWORDS: Vocal fold, surgical procedure, surgical technologies

Assesment of olfaction impairment

R. Doty

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Although olfaction is intimately entwined with health and disease, it is commonly overlooked and rarely tested by physicians, including otolaryngologists. Disorders of this sense range from total loss (anosmia) to varying degrees of partial loss (hyposmia or microsmia) and can include distortions (dysosmia) as well as hallucinations (phantosmia). Such disturbances are very devastating to a patient's well-being, markedly reducing enjoyment from food, beverages, personal care products, and the natural environment, and significantly increase the likelihood of danger from fire, leaking natural gas, and spoiled food. This is particularly true for those whose livelihood or safety are directly affected by this sense (e.g., chefs, plumbers, fire fighters, policemen, perfumers, wine merchants, and employees in numerous industries, including the chemical, water, gas, and power industries).

In this presentation, Dr. Doty will provide an overview of the numerous factors that can influence the sense of smell, including age, sex, smoking behavior, nutrition, and numerous medical conditions including head trauma. He will discuss how the sense of smell is evaluated clinically and address the important point that olfactory dysfunction can be a clinical or pre-clinical sign of a wide range of neurological diseases, including Alzheimer's (AD) and Parkinson's (PD) disease. He will present evidence that specific neurotransmitter dysfunctions may be the basis of the smell loss across a wide spectrum of neurological disorders. Importantly, he will discuss studies demonstrating that smell loss is associated with early mortality. For example, in one study performed in conjunction with Columbia University, increased risk of death among 1,162 non-demented older persons progressively increased as olfactory dysfunction increased over a four-year period, even after adjusting for sex, age, and education. Participants with the lowest baseline olfactory test scores had a 45% mortality rate over this time period, as compared to an 18% mortality rate in those with the highest test scores.

Mucociliary epithelium function in patients with fungus ball of the maxillary sinus

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INTRODUCTION. The importance of restoring the nasal mucosa function after a fungal process and a surgical implication is primary in improving the quality of life of our patients.

PURPOSE OF THE STUDY. A prospective comparative in vitro study of the nasal mucociliary epithelium in patients with fungus ball of the maxillary sinus for correct adjustment of the diagnostic protocol and postoperative treatment.

METHODS. Control group: 30 individuals. Study group I: 15 patients - surgical treatment (FESS) and conservative treatment (1 month) with saline solution lavage, topical vasoconstrictors. Study group II: 15 patients - surgical treatment (FESS) and conservative treatment (1 month) with saline solution lavage, topical vasoconstrictors and Sinupret extract.

RESULTS. Statistic test applied: Anova. In our study, the frequency of ciliary movements after post-surgical conservative treatment was statistically significantly lower in patients of group I compared to patients in group II (4.9 ± 0.06 Hz and 8.5 ± 0.1 Hz, respectively, $p < 0.001$), and subjects in the control group (4.9 ± 0.06 Hz and 11.9 ± 0.3 Hz, respectively, $p < 0.001$).

CONCLUSIONS. (1). The frequency of ciliary movements was statistically lower in patients in group I compared to those in group II. (2). This can be caused by the use of Sinupret extract that has an anti-inflammatory and secretolytic effect, facilitating the dissolution of mucous secretions and restoring the integrity of the nasal mucosa and mucociliary epithelium.

KEYWORDS: mucociliary epithelium, fungus ball, maxillary, Sinupret extract.

Molecular diagnosis of nasal allergies

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Precision medicine allergy immunodiagnostics for detection of specific IgE to allergen components (singleplex, multi-allergen, and multiplex immunoassays, either microarray technology-based or microarray nanotechnology-based) may be used in nasal allergies diagnosis within the framework of a detailed patient's clinical history. IgE sensitization to a given allergen does not necessarily imply clinical significance, while comprehensive case history alone may overlook relevant aeroallergens, especially in multisensitized patients. Several molecular thinking approaches may be used by allergists: anamnesis molecular approach (e.g. history-related information regarding oral allergy syndrome to Rosaceae fruit in a patient with seasonal allergic rhinitis in spring suggests pathogenesis-related protein PR-10 sensitization involvement), laboratory molecular approach (e.g. high levels of specific IgE to all pollen species without plant food reactions suggest IgE sensitization to polcalcins), and postmolecular anamnesis (e.g. invertebrate food allergy symptoms explained in the presence of IgE sensitization to tropomyosin). Molecular allergy diagnostic work-up usually uses an integrated "U-shape approach", with classical "top-down approach" from symptoms to molecules, subsequently combined with targeted "bottom-up approach" from molecules to clinical implications, in order to obtain a comprehensive IgE sensitization profiling in patients with allergic rhinitis, to distinguish genuine IgE sensitization from sensitization due to cross-reactivity in multisensitized patients, and for an optimal decision making for treatment, including an accurate prescription of allergy immunotherapy.

Epistaxis treatment

Violeta Melinte^{1,2,3}

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Nasal haemorrhage or epistaxis is the most common otolaryngologic emergency. It affects about 60% of the population and a percentage of 6% do not cease spontaneously, medical approach being needed.

The management of epistaxis varies depending on its severity and ethiology. The therapeutic conduct of this ENT emergency is based on three main principles: 1. Local hemostasis; 2. Detection and ceasing of the cause; 3. Evaluation and correction of hypovolemia if necessary. Hemostasis can be done by chemical or electric cauterisation after identifying the bleeding source, by nasal packing, by endoscopic or external surgery or, in special cases, when none of the above methods returns any results, embolisation .

In the current presentation, I will speak about epistaxis management in patients presented in the Emergency Room, in chronic cases of vascular intranasal tumors with recurrent bleeding, in iatrogenic haemorrhages, and none of the least I will bring into discussion the treatment applied for patients diagnosed with hereditary haemorrhagic teleangiectasy.

KEYWORDS: epistaxis, hemostasis, electric cauterisation, hereditary haemorrhagic teleangiectasy

Dysphagia – from rehabilitation to recovery

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Dysphagia is defined as difficulty in swallowing, commonly associated with obstructive or motor disorders of the oropharynx, hypopharynx, or esophagus.

There are not many studies on the epidemiology of swallowing disorders. A 2011 study in the United Kingdom reported a prevalence rate of 11% for dysphagia in the general community. One in 17 people will develop some form of dysphagia in their lifetime.

Dysphagia can be caused by many different disorders, including natural aging, neurological diseases, head injury, degenerative diseases, systemic diseases, autoimmune disorders, neoplasms, and infection. Swallowing disorders may also arise from surgery such as head and neck surgery, pharynx and larynx surgery, anterior cervical spinal surgery, skull base surgery.

The evaluation of the patient with dysphagia consists in oral pharyngeal and laryngeal examination, swallowing clinical examination and instrumental tests (transnasal flexible laryngoscopy, fiberoptic endoscopic evaluation of swallowing, modified barium swallow, manometry and videomanometry).

The nonsurgical treatment of swallowing disorders consists in compensatory swallowing therapy (oral motor exercises, shaker exercise, thermal tactile oral stimulation, expiratory muscle strength training, neuromuscular electrical stimulation) and rehabilitative swallowing therapy (various swallowing maneuvers, swallowing postures)

The prosthetic management of dysphagia includes different types of prostheses (palate lowering prostheses, soft palate prostheses, lingual prostheses, speaking valves).

The surgical treatment of swallowing includes vocal fold medialization (medialization of vocal fold injection, laryngeal framework surgery), palatotomy, pharyngoesophageal dilatation, surgical closure of the larynx, gastrostomy, tracheotomy.

Treatment is a team process to ensure swallow safety, contribute to the improvement of the nutrition status and the increment of the quality of life for the patient with swallowing disorders.

Avoiding misdiagnosis in patients with acute vestibular disorders

Raluca Enache

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Dizziness is a complex symptom that reflects a perturbation of the normal balance perception and spatial orientation. In the literature there is a lack of consensus on the exact terminology and as a result dizziness can be categorized as vertigo, disequilibrium, presyncope or dizzy-like sensations. The vestibular system is represented by the inner ear balance organs, the vestibular portion of the eighth cranial nerve and the central nervous system. Any disease affecting the peripheral vestibular system or the central vestibular system will lead to signs and symptoms consisting in disruption in walking, eye stability and autonomic system.

Considering the complexity of the vestibular system there is a high variability of symptoms ranging from severe, world-spinning vertigo to vague sensation of spatial disorientation. Due to this variability, dizziness is the most difficult symptom to diagnose and there can be a misdiagnosis especially in the acute phase when the specialist has to differentiate between peripheral and central vestibular pathology.

Keeping in mind that beside peripheral vestibular disorders, the cerebellar strokes are one of the common causes of vertigo, the key for a quick and correct diagnosis is the bedside examination.

KEYWORDS: acute vestibular disorders, peripheral vestibular pathology, cerebellar stroke, nystagmus, dizziness

Medico-legal aspects in rhinologic surgery anything new?

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In this fast world that we are living in, is an everyday challenge to keep ourselves up-to-date with new medical techniques and therapeutically options. At the same time we have to be legally covered for any malpractice case our patient can raise.

In Romania, during the past year, new rules were implemented in the medical practice. The most important of them is the new “Hospital Admittance Consent Form”, where the patient must fill in his personal data, has to give a general agreement for medical maneuvers and has to confirm he received all the notification regarding the following: his health status, diagnosis, prognosis, the purpose of the medical act, the suggested interventions with its benefits, risk and alternatives of the treatment or the disease evolution in its absence. Even though this new consent form published by the order of The Romanian Ministry of Health covers most of the aspects regarding medical information, some details were disregarded. For example: storage of medical documents (including photos) in the doctor’s archive and their usage for didactic and scientific usage, usage of biological material for medical studies, the possibility to inform the family members about the diagnostic and other aspects.

In addition, a form must be signed off by the patient in order to approve surgery. This form contains the consent of the patient admitting having received the information about both potential risks of surgery and the health problems generated by not having the intervention. For example: aggravation of the present symptoms, orbital or/and brain complications, olfactory disorders, lower respiratory tract inflammation/infection. All this should be verbally explained to the patient.

Customizing a written list of every type of rhinologic surgery, for each patient, is a time consuming task. That’s why every doctor or clinic can create its own detailed consent template to use in the daily medical practice. From a legal point of view, even if is not a template issued by the superior forums, this kind of legal prevention is agreed by the attorneys and the legal medicine practitioners.

It is mandatory to inform the patient and sign the consent form before providing any medical care. Remember that verbal consent is difficult to prove in case of a legal dispute and the doctor will be the one who has to present evidence to sustain his sayings.

KEYWORDS: informed consent, rhinologic surgery, legal issues

ROUND TABLES

Bacterial rhinosinutes - histological and microbiological aspects

Carmen - Aurelia Mogoanta, F. Anghelina, Elena Ionita, S. Ciolofan, Ramona Malin, Ioana-Cristina Opriscan

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INTRODUCTION: Rhinoinusitis is an important public health problem with a growing incidence and prevalence in developed countries, which impresses with impressive costs in diagnosing and treating this condition.

Material and method: we will study the patients with rhinosinusal diseases internalized and treated within the Otolaryngology Craiova Section.

The study group consists of 850 patients admitted to the O.R.L department of the Emergency County Clinical Hospital of Craiova with rhinosinuitis inflammatory pathology between 2012-2016

Patients will be initially investigated through an O.R.L. classic exam, synchronously completed paraclinical (radiological and imaging) and laboratory investigations.

RESULTS: the percentage distribution of germs involved in the etiopathogenicity of the 850 cases was the following: in 28% of cases, the laboratory examinations showed direct involvement of Haemophilus influenzae, 23% of Moraxella catarrhalis, 31% of streptococcus, 12 % Staphylococcus aureus, the remaining 6% of cases of anaerobic germs, were involved. The microscopic study of sinus mucosal fragments allowed us to notice important changes in both the epithelium and the underlying connective tissue. Viewed as a whole, the sinus mucosa has shown hypertrophy areas associated with numerous encapsulation and clogging in the form of crypts.

Vascular alterations were active congestion and angiogenesis processes.

CONCLUSIONS: Studies show that over 50% of cases of rhinosinuitis, irrespective of their severity, are caused by Streptococcus pneumoniae and Haemophilus influenzae. Moraxella catarrhalis and Staphylococcus play an important role but are uncommon.

Inflammatory reaction is a complex non-specific defense response developed by the body under conditions of exogenous aggression that includes both alterative phenomena as well as reaction, vascular, exudative, proliferative and reparative phenomena.

Inverted papiloma – what’s new?

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Inverted papilloma is a benign tumor arising from the epithelium of the nose and sinuses with a slow growing pattern and a confirmed viral etiology (Human Papilloma Virus) in more than 80% of patients. The main characteristics of inverted papilloma are represented by important destruction of surrounding structures, high risk of recurrence and malignant degeneration. In almost 200 cases of inverted papilloma which I approached endoscopically, I got the experience to emphasize on some tips and tricks regarding the diagnosis and surgical treatment of this sinonasal tumor: What is new in this pathology? The involvement of several genotypes of HPV and the multimodal treatment : endoscopic surgery, antiviral agents, monoclonal antibodies.

Juvenile angiofibroma – what’s new in endoscopic approach?

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Juvenile nasopharyngeal angiofibroma is a benign vascular tumor with a low incidence (around 0.05% of all head and neck tumors) and occurs most fre-

quently on young male patients. The main symptoms are nasal obstruction and epistaxis. To establish the extent of tumor and the treatment plan it is necessary to have a very good imagistic examination (both endoscopic and radiologic).

With this occasion will discuss about the endoscopic approach of juvenile nasopharyngeal angiofibroma. Due to technological advances with implementation in endoscopic sinus surgery, it is possible to approach this tumors, even it is in Radkowski stage 2 (extending to the sphenoid sinus, pterygoid wedge and minimal involvement of the pterygopalatine fossa).

Malignant nasal tumors treatment principles

M. D. Cobzeanu

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The author stresses on the importance of a good understanding of the anatomical aspects of the nose and the face for a successful surgical act. A precise anatomopathological diagnosis allows for a correct oncological evaluation of the tumor which ensures choosing the best therapeutical plan for the patient.

The author presents his surgical experience, selecting several cases solved between the years 2012-2016 in the ENT Department of "Sf. Spiridon" Hospital Iasi, Romania. Different types of reconstructive surgical techniques for closing the defect were used in order to obtain a good functional and esthetical result.

Nasopharyngeal angiofibroma – treatment options

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Nasopharyngeal angiofibroma, occurring mostly in young men, is histological a benign tumor with aggressive clinical behavior that includes repeated epistaxis, intractable nasal obstruction, invasion into the paranasal sinuses, pterigomaxillary and infratemporal fossa, into the cheek, the orbits and middle cranial fossa. Because of this local aggressivity the prognosis is bad in case of inadequate treatment. The most important treatment modality is the complete surgical removal of the tumor. There are various surgical approaches, from the classical transpalatine and lateral rhinotomy approaches, to the newer mid facial degloving and endoscopic approaches. Preoperative embolisation is important because of the intense vascularity of the tumor, causing profuse bleeding during surgery.

The presentation reviews the experience of the E.N.T. Department of Timisoara regarding the clinical features and the treatment options in nasopharyngeal angiofibroma

KEYWORDS: juvenile nasopharyngeal angiofibroma, local aggressivity, surgical treatment

Surgical management of nasal obstruction in functional rhinoplasty

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Modern approaches to rhinoplasty must consider function as well as aesthetics. A thorough understanding of the anatomy of the nose is very important in rhinoplasty.

Anatomic nasal airway obstruction has been described as due primarily to the following: septal deviation, turbinate hypertrophy, internal valve collapse, external valve collapse. My study consist in 50 patients with nasal obstruction symptoms confirmed by quantitative measurement of the nasal air passages methods. We have studied the efficacy of functional rhinoplasty technique using patient questionnaires in retrospective analyses.

Functional rhinoplasty techniques requires a thorough understanding of the nose anatomy and are designed to improve nasal airflow while maintaining aesthetic norms of the nose.

KEYWORDS: functional rhinoplasty, nasal airway obstruction, internal valve collapse, external valve collapse.

DILEMMAS IN THE DIAGNOSIS AND TREATMENT OF THE CONDUCTIVE DEAFNESS

Luminita Radulescu

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INTRODUCTION: Conductive deafness with intact tympanic membrane may be secondary to many factors (for example: trauma, inflammation, degenerative processes, malformations, otosclerosis, tumors, etc.).

MATERIAL AND METHOD In majority of cases the diagnosis is relative simple, but there are also situations when even the high resolution CT scan can miss the right diagnosis. The final diagnosis is possible by middle ear surgical inspection.

RESULTS We report some cases of conductive hearing loss in which the diagnosis was possible just after middle ear inspection. We present the treatment and the results obtained.

CONCLUSION Conductive deafness with intact tympanic membrane remains a challenge for the otologist. Open and clear discussion with the patient prior to surgery is crucial in order to accurately explain to the patient the expectations he / she should have.

KEYWORDS: conductive deafness, diagnosis, treatment

COCHLEAR IMPLANT – WHY AND WHEN BILATERAL

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Due to the expected benefits: better speech understanding in noise, better sound localization, the availability of a backup implant etc., bilateral cochlear implantation is becoming standard care for children with profound or severe to profound hearing loss.

Although the advantages of binaural hearing are well known some questions remain relative to: the indications of simultaneous vs sequential cochlear implantation, timing between implants, the safety and the outcomes of bilateral implantation in children with anomalous cochleovestibular anatomy or with auditory neuropathy, the implications for the vestibular function etc.

And also regarding the real benefits of bilateral cochlear implantation in adults.

Based on the present knowledge the panel will try to clarify this topic.

KEYWORDS: bilateral, cochlear implant

Bilateral cochlear implantation with regard to long term speech rehabilitation

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University of Medicine and Pharmacy "Carol Davila"

Cochlear implants represent the ultimate approach to severe sensorineural hearing loss. Due to a larger scale neonatal screening and to more financing addressing the issue, bilateral implanting has been set up as a standard in clinical pediatric ENT practice. Objective: to assess behaviorally and audively our series of bilateral implant patients. Material, methods: the test that we used to evaluate small children (under 3 y old) was ITMAIS. SIR and CAP tests were used for assessing global auditory performance in older children.

RESULTS: auditory performance began later in simultaneously implanted children versus sequentially ones. The long term scores and rate of progress was instead better in simultaneous cases. Overall, the quality of life for bilateral implanted children was better than their single implanted peers.

CONCLUSION: bilateral implantation, in a sequential short time way, seems the best approach for bilateral sensorineural deafness in children.

KEYWORDS: cochlear implantation, pediatric, speech rehabilitation

Revision surgery for pharyngeal necrosis after radiotherapy or total laryngectomy

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The author presents a retrospective study on different types of flaps used to solve necrosis and fistula of the pharynx after surgery or radiotherapy in larynx carcinomas treatment.

456 cases with larynx carcinomas were treated between the years 2011-2015 in the ENT Department of "Sf. Spiridon" Hospital Iasi, Romania. 320 cases were diagnosed in advanced stages out of which 136 received total laryngectomy followed by radio-chemotherapy, 150 received radiotherapy and 34 received palliative therapy.

Post-therapy complications include necrosis and fistula at the level of the pharynx or local recurrences which were solved by different types of reconstructions.

Management of pharyngoesophageal junction neoplasm

S. Bertesteanu

Assoc. Prof. Dr. Bertesteanu Șerban Vifor Gabriel

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Ophthalmology Department

Chief of E.N.T. Clinic - „Colțea” Clinical Hospital Bucharest

Malignant tumors which arise or extend to the pharyngo-esophageal junction represent a small portion of the the total number of cancers of the head and neck. However, scarce as they are, they still present one of the most complex and challenging surgical treatment technique – for the ENT surgeon – the total pharyngo-laryngectomy with subsequent pharyngeal reconstruction.

Thus, in cases of tumors up to T4b that allow resection with safe margins, the main issue faced by the surgical team is which method to choose for reconstructing the digestive tract. There are at least a couple of choices which have been used on a large scale: the radial forearm flap, the gastric pull-up and colonic or jejunum transposition – but all have similar disadvantages from the ENT standpoint: multidisciplinary approach, long duration of surgery and high risk of complications, especially during or immediately after radiation therapy.

A method designed out of necessity by Prof. Popescu in our clinic is to use a Montgomery esophageal tube to act as a prosthesis and replace the pharynx and upper cervical oesophagus – making the procedure easy to perform by a ENT surgeon, and minimising the risk of graft necrosis and fistulas. We have a 14 year experience using this technique and have similar results, if not better, than that of the other cited methods.

In conclusion, surgical treatment of malignancies interesting the pharyngo-esophageal junction represent a challenge for the ENT surgeon – with the reconstruction stage being the most prone to complications. Choosing a technique using prostheses allows for obtaining the best compromise between cost, duration of procedure, hospitalisation time and rate of complications.

Clinical nutrition concept in the treatment of head and neck cancer

Raluca Grigore

Assist. Prof. Dr. Grigore Raluca

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Ophthalmology Department

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Malignant tumors of the head and neck have features which may lead to early odynophagia, anorexia and increased catabolism – intricate mechanisms which affect the nutritional status of the patient, generating malnutrition.

In broad terms, the malnourished patient has a decreased immunologic status, a longer healing time, with more likely as well as more severe complications relating to surgical interventions. With such a wide and serious array of ramifications with regards to the evolution of a patient with a head and neck cancer – screening for and treating malnutrition should be a top priority for any ENT surgeon dealing with such cases.

We have developed a collaboration with the Romanian Society for Enteral and Parenteral Nutrition from which our current expertise in this matter comes, and follow whenever possible their guidelines for screening and treating malnutrition. From our experience dealing with head and neck cancer patients, more than 60% of patient with advanced (T3 and T4) stages of tumors have a degree of malnutrition.

Our method is to screen for malnutrition at admission using the NRS-2002 clinical score, and to offer dietary counseling as well as to supplement the patient's intake using formulas specially engineered for the specific route of administration (the most frequent being the enteral route by way of a NG feeding tube).

We found that patient evolution, with regards to healing, complications and hospital stay is significantly improved when concomitantly treating malnutrition.

Regional reconstruction solutions in head and neck cancer

R. Hainarosie

UMF "Carol Davila" Bucharest

IFACE-ORL Prof. Dr. Dorin Hociota, Bucharest

After removing tumors in the head and neck surgery the surgeon will have to reconstruct de post-ablative defects. Complex defects in head and neck oncology will involve skin, muscle, mucosa and bone. The surgeon must analyze the surface, the volume and the material involved in the defect and to chose the optimal method of reconstruction.

The defects are difficult to be systematized.

The method: analyzing the post-ablative defects we were confronted with after neoplasia resection in head and neck area.

The result: to present a protocol of analysing and choosing the optimal reconstructive method for a various type of post-ablative defects in head and neck oncology area.

KEYWORDS: reconstruction solution, head and neck area.

Pediatric Otosclerosis - Case Considerations

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Pediatric otosclerosis cases are uncommon. Their association with other ear disease can add to a difficult patient approach.

OBJECTIVE: to present a complex case with cholesteatoma of the middle ear associated with otosclerosis, operated in our department. Material, method: case presentation, after reviewing clinical, imagistic, audiological and surgical data.

RESULTS: cholesteatoma could be safely removed from the middle ear but complete osseous obliteration of the oval window prevented auditory recovery. Stapedotomy and total ossicular replacement prosthesis applied in a second stage surgery could not achieve good long term functional results.

CONCLUSION: otosclerosis can be a surgical discovery during middle ear surgery, even in children. The surgeon should be familiar with the disease and address this challenging condition as conservative as possible for best inner ear preservation.

KEYWORDS: otosclerosis, pediatric, cholesteatoma

Hemangiopericytoma of the middle ear

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Haemangiopericytoma (HPC) was described in 1942 by Stout and Murray as a distinctive soft tissue neoplasm, presumably of pericytic origin, exhibiting a characteristic well-developed "staghorn" branching vascular pattern. The head and neck incidence is less than 20%, mostly in adults and only two cases of hemangiopericytoma arising from the middle ear has been communicated in the literature. We report herein a case of HPC resected from the middle ear of a 32-year-old woman, who presented in our department with a red middle ear mass and conductive hearing loss, initially thought to be a glomus tumor. The tumor was completely removed by surgical resection and the hearing was restored by type III tympanoplasty. After 4 months the patient returned with a facial palsy, but no tumor recurrence was found in the middle ear cavity. The patient was referred for proton radiotherapy. The imaging characteristics, clinical and pathologic findings in this patient are discussed. One common denominator for hemangiopericytomas, it is the lack of uniformity in appearance, growth and biologic behavior, therefore, long term follow up is mandatory in these very rare types of tumors.

Diagnosing and treating pediatric rhinosinusitis

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The nose contains organ of smell and respiration. It warms, cleans and humidifies the inspired air, cools and remove the water from the expired air. It also adds quality to speech production. The ENT surgeon should distinguish normal nasal function from pathological symptoms to prevent unnecessary surgery. Although the nose is a paired structure divided coronally into two chambers, it act as a functional unit. Development of the Maxillary sinus seen on plain films at 4-5 months and slow expansion until 18 years. The Ethmoid sinus seen on radiographs at 1 year and enlarges to reach adult size at age 12. The Sphenoid sinus pneumatization begins at age 3 rapid growth to reach sella by age 7 and adult size at age 18. The Frontal sinus seen on radiographs at age 5-6 and grows slowly to adult size by adolescence. The predisposing factors of the pediatric rhinosinusitis are: Allergic rhinitis; Immunodeficiency: IgG subclasses, IgA; Genetic/congenital; Cystic fibrosis, Ciliary dyskinesia; Anatomic obstruction, Gastroesophageal reflux; Microorganisms; Pollutants, Medications, etc. By Clinical Consensus Statement on PCRS (AAO-HNSF): 20 consecutive days of Antibiotic Management may produce a better response than 10 days therapy. The daily nasal saline irrigations and intranasal steroid use with or without AB are useful. When the reason for pediatric chronic rhinosinusitis (PCRS) is adenoid hypertrophy, then adenoidectomy has been shown to decrease the load of nasopharyngeal pathogens associated with PCRS. Adenoidectomy is an appropriate surgical intervention in children from 6 to 12 years of age and strong consensus for children than 6. Adenoidectomy can have a beneficial therapeutic effect independent of endoscopic sinus surgery. Tonsillectomy without adenoidectomy is not useful in the treatment of PCRS. Very rarely have to operate a child with pediatric rhinosinusitis and you have to do always "sandwich" treatment. PCRS is multifactorial and treatment is based on predisposing factors.

Sound localization rehabilitation in binaural cochlear implanted adults - a spontaneous longterm process

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INTRODUCTION. For adult patients with cochlear implant the condition for the best possible communication and social reintegration is to hear with both ears. This favors speech discrimination in quiet and in noise, as well as spatial hearing. The Digisonic SP Binaural cochlear implant, providing hearing for both ears with a single device, offers the advantage of the similar and synchronized sound processing for both ears.

Aim. We have conducted a long-term follow-up for patients implanted in our clinic. The aim of the study was the evaluation of the performances in tonal hearing, speech understanding and particularly sound localization for our postlingual deaf adults with binaural cochlear implant devices.

MATERIAL AND METHODS. The study includes six patients with severe or profound sensorineural hearing loss who were implanted with binaural cochlear implant. They were periodically evaluated by free field tonal audiometry, speech audiometry and sound localization tests along 6 years after the implant activation. The auditory performances were developed without any training. The audiological outcomes were observed at 3 months, 6 months, 12 months, 2 years, 4 years and 6 years after the first fitting.

RESULTS. The tonal free field audiometry shows auditory thresholds close to normal hearing bilaterally for all patients after first 3-6 months. Speech understanding mean score was over 75% in quiet and 70% in noise. Sound localization performance increased in time constantly as a spontaneous longterm process, but the rehabilitation period to obtain the best ability of the patient to identify the direction of the sound source is different for each patient.

CONCLUSION. The bilateral implantation is obviously a better solution than unilateral implantation, providing a better tonal audition and a better speech understanding. For the spatial sound localization rehabilitation, the binaural or bilateral cochlear implantation is a must, only the stereophonic audition can provide the spatial auditory skills.

KEYWORDS: binaural cochlear implantation, sound localization.

OSA Surgery

K. Hormann

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Obstructive sleep apnea (OSA) as a multifactorial disease is treated with continuous positive airway pressure (CPAP) as the gold standard. Yet, if patients suffer from CPAP incompliance, traditional OSA surgery only targets morphological changes of the upper airway while neglecting functional issues.

The mechanisms causing an upper airway collapse have not been completely understood up until now. Yet, a decline in pharyngeal neuromuscular activity during sleep in obstructive sleep apnea (OSA) patients has been identified. This knowledge has supported the notion that stimulation of the upper airway muscles may prove effective in treating this condition. Previous reports have indicated that various upper airway dilator muscles, particularly the genioglossus, contribute to stabilizing the upper airway during sleep. As a result, various actions have been taken to selectively stimulate only the upper airway dilator muscles. This has been achieved using transcutaneous, percutaneous, and transmucosal stimulation of the hypoglossal nerve.

With this advent of upper airway stimulation, and in particular hypoglossal nerve stimulation as a treatment option, a highly effective, clinically proven and functional therapy with good evidence is available. Since its first introduction, the therapy has evolved in terms of the used technology, safety, efficacy and selection criteria. In the beginning it was solely used as an experimental procedure, yet, with increasing experience, hypoglossal nerve stimulation more and more becomes clinically available in specialized centers. Since the advent of these IPGs as treatment for OSA, quite some time has passed and their use has become more widespread around the world.

This symposium gives a comprehensive overview of current and upcoming therapy options, the specific advantages of different approaches, the selection criteria and screening process, relevant clinical data, and a description of the different procedures. New therapeutic options appears to be a long-term, low-morbidity treatment for moderate-to-severe OSA patients suffering from CPAP incompliance.

The coblator technology in the treatment of hypopharyngeal obstruction in OSAS patients

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The Obstructive sleep apnea syndrome is a complex nosological entity characterized by an obstruction at various levels of the upper airways during sleep. One of the site which can create an obstruction during sleep is the hypopharynx which includes the tongue base and the epiglottis. The surgery at this level aims at widening the retro-lingual space of the airway.

The purpose of our study is to describe a new epiglottoplasty technique executed via transoral endoscopy by means of Coblation technology®

Three patients have been assessed with OSAS diagnosis at Foggia University Hospital – ENT Department – Foggia - Italy. All the patients had undergone

a sleep endoscopy which showed a retro lingual collapse caused by a primary epiglottis collapse.

Patients subsequently underwent endoscopic epiglottoplasty with Coblator, in conjunction with anterior pharyngoplasty in one patient and sphincter expansion pharyngoplasty in another.

At 15-day follow-up only a fibrin streak was observed on the posterior face of the epiglottis. At 2-month follow-up no fibrin trace was detectable and the epiglottis looked the same shape as an healthy one, but smaller. The use of suture to approach the epiglottis mucosa appeared to be complex, with surgery time prolongation and without any advantages in the postoperative period, as the resulting scar looked the same.

The polysomnography exam after three months highlighted an AHI < 5 in all cases with ODI < 10 and 97% mean SO2, and 94% mean Nadir.

Patients reported a restful sleep with significant snore reduction. Only in one case did an annoying sensation of foreign body persist 6 months after surgery. Nevertheless this perception might be associated with the anterior pharyngoplasty which the patient simultaneously underwent.

In conclusion the Coblator-assisted endoscopic epiglottoplasty may represent an excellent option for epiglottis surgery in OSAS patients, being less invasive and less expensive compared with techniques currently in use.

How to manage the patient with OSAS

Adriana Neagos

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Obstructive Sleep Apnea Syndrome is characterized by the existence of repetitive and transient upper obstruction episodes that lead to intermittent periods of decreased oxygen saturation and awakening during sleep, leading to its fragmentation due to relaxation for short periods of time of the soft tissue that is part of the pharynx.

Obstructive Sleep Apnea is considered to be the most common cause of sleep disorders, affecting 2% -4% of the population; About 93% of women and men 82% of men suffering from this disease have not been diagnosed.

The low tone of the upper airway muscles is one of the most important causes of this disease, favoring the deposition of underlying tissue. On the other hand, periodic narrowing during the sleeping of a higher airway leads to episodes of lowering the oxygen concentration in the blood, increase the activity of the sympathetic nervous system.

Incriminated risk factors are: male gender, menopause, advanced age, body mass index > 25, increased neck circumference > 43.1 cm for men and > 40.6 cm in women, drug use, alcohol and tobacco.

Sleep disturbances are a disease of the modern world that affects the quality of life and have consequences that are not worthy of negligence, from daytime somnolence that can lead to decreased workplace performance by affecting the ability to concentrate. That is why proper case management, diagnosis and correct treatment determine the quality of life.

Voice diagnostics and investigations for phonosurgery

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Voice complaints, dysphonia or hoarseness are symptoms which assures a rapid presentation of the patient to an ENT examination. In order to get a proper result of the laryngeal pathology, it is necessary for the speech therapist, laryngologist or phonosurgeon to use a clinical preoperative protocol and investigations for a correct voice disorder diagnose.

Investigations like self-assessment of vocal quality (Voice Handicap Index), auditory-perceptual assessment of voice, laryngeal examination (rigid and flexible endoscopy, electromyography), examination of vocal fold movements (stroboscopy, electroglotography), computer-assisted voice sound analysis, are mandatory for voice diagnose preoperative and also after phonosurgery in order to objectify the results.

Voice disorders after laryngeal benign tumors removal

C. Ionita

To get a better voice after laryngeal surgery, include accurate phonosurgical act but also the correct preoperative and postoperative care. The causes of the postoperative dysphonia are attributed to residual mass lesions, vocal fold scarring, residual inflammation, recurrent mass, psychogenic dysphonia, hyperfunctional voice disorder. The interdisciplinary approach of the voice care team to the dysphonic patient after laryngeal surgery, is useful in defining the pathology and refining a treatment rehabilitation program.

KEYWORDS: voice disorders, phonosurgery, perioperative care

Compensatory voice technique following LASER phonosurgery

Elena Cristescu

The authors is presenting an up-to-date review concerning compensatory voice mechanisms, occurred spontaneously after laryngeal oncological LASER surgery. Functional laryngeal surgery include different types of LASER cordectomy according to ELS classification, with or without arytenoidectomy. Voice rehabilitation is required after surgery, for the socio-professional reintegration of the patient.

Optimal voice outcome is achieved through spontaneous compensatory mechanisms simultaneously with voice therapy techniques.

KEY WORDS: Laser cordectomy, compensatory voice mechanism, voice disorders

The importance of the clinical examination in the diagnosis of vertigo and dizziness

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This presentation is a review of an optimal comprehensive algorithm for the evaluation and contribution of clinical examination to the diagnostic of vestibular diseases. Since often the subjective clinical tests have a limited contribution to the diagnostic in balance pathology, the objective tests represent the gold standard for vestibular evaluation, offering also an important information for the localization of the vestibular lesion: peripheric, central or mixt vestibular damages.

An up-to-date practically and clinically focused methodology, which should be applied in the vestibular assessment protocol, will be discussed. We present the classic diagnosis approach versus modern clinical useful tools including hearing and balance battery tests. The advantages and disadvantages of tympanometry, stapedian reflex, otoacoustic emissions, auditory evoked potentials as well as spontaneous and evoked nystagmus assessment, vestibular evoked myogenic response, posturography, caloric vestibular tests and other modern investigations in the algorithm of vestibular evaluation will be analyzed.

A good practical oriented clinical examination, linked with a detailed history will provide essential elements for the correct diagnosis in order to offer the appropriate treatment to the patient in the best time/cost report. A part of the vestibular diagnosis tools are used also for vestibular rehabilitation strategy and also for the survey of the vestibular compensation process.

KEYWORDS: vertigo, dizziness, clinical examination.

THE USE OF 4K ENDOSCOPE IN SKULL BASE APPROACHES

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Transnasal endoscopic skull base surgery is a field in continuous and technical evolution. The progressive introduction of technologies such as high definition

(HD) endoscopy and 3D endoscopy provided great advances in terms of visualization and spatial resolution. The recent introduction of ultra-high definition (UHD) 4K systems might determine a further step forward. The patients were operated on through a Transnasal Transsphenoidal endoscopic approaches performed using Olympus NBI 4K UHD endoscope with a 4 mm 0° Ultra Telescope, 300 W xenon lamp (CLV-S400) predisposed for narrow band imaging (NBI) technology connected through a camera head to a high-quality control unit (OTV-S400 – VISERA 4K UHD) (Olympus Corporation, Tokyo, Japan). Two screens are provided, one 31" Monitor – (LMD-X310S) and one main ultra-HD 55" inches screen optimized for UHD images reproduction (LMD-X550S). In selected cases we used a navigation system (Stealthstation S7, Medtronic, Minneapolis, MN, US).

Further enhancing endoscopic images resolution beyond the capability of commercial HD devices might seem like a minor issue or just another step in the continuous arms race involving most third level nasal endoscopy centers. Nevertheless, even if no-one could deny the huge importance of a skilled and experienced surgeon and of an utmost knowledge of anatomy and surgical approaches, any experienced endoscopist will admit that clear and correct visualization of the surgical field is the key in performing endoscopic sinus and skull base surgery with excellent results and acceptable safety margins. In these terms the excellent resolution to 4000 horizontal pixels (hence the name of the technology) means conveying roughly 400% information per frame when compared to conventional HD images. This in turn leads to richer images with more detailed tissue visualization, allowing for better definition of the anatomical and pathological structures. The example we report concerning pituitary adenomas treatment is illuminating: 4K endoscopy allows the surgeon to better distinguish between lesion, diaphragm sellae, pituitary gland and pituitary stalk, with more complete and more careful dissections and lower complication rates. Ultra-high definition allows distortion free live zooming functions up to 2x, which determine a considerable magnification of tissue, which might open to significant improvements in dealing with margin definition. The overall better performance of the device, with button-controlled autofocus, wider focus field and better lighting, generates lower fatigue and stress in the surgeon, improving the overall performance of the surgical team. Unlike 3D devices, UHD device has virtually no learning curve, since the surgical approach and landmark mapping is analogous to any other 2D device, but fully exploiting its potential will definitely require more thorough validation, especially in terms of operating time in comparison with other endoscopic technologies. In the patients treated we were able to detail the vascular appearance of the tissues despite the presence on the surgical field of moderate amount of blood, which usually tend to obscure the vision with conventional NBI equipment. This might lead to an easier and more useful application of this technology in nasal surgery, especially for surgical oncology purposes.

Though no major disadvantages have been reported in this preliminary experience, the 4K video and image storage required a lot of space for generating a valid archive and also the need of dedicated storage and registration unit is of paramount importance although it is expensive. Despite our preliminary experience being far from exhaustive, these initial data hint to a greater potential for this new endoscopic technology than the mere technical specifications might suggest. Furthermore 4K endoscope combined with NBI technology had in our opinion the potential to start a revolution in skull base surgery. Further studies using the same NBI technology combined with 4K resolution and rigid scope are necessary to validate this extremely interesting potential. Surgery was successfully completed in all cases and the new device showed promising features. This preliminary experience suggests that UHD endoscopy has a great potential going farther than the mere technical specifications might suggest.

In conclusion the visualization and high resolution of the operative field provided a great detailed view of all anatomical and pathological structures leading to an improvement of safety and efficacy of the surgical procedure. The operative time was similar to the standard 2D HD and 3D procedures and also the physical strain was comparable to the latter techniques in terms of ergonometry and weight.

EVOLUTION IN TREATMENT OF HEAD AND NECK CANCER WITH FREE FLAPS AND IMPACT IN SALVAGE SURGERY

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Surgery is considered the gold standard to achieve tumor control in oral cavity cancer but the diagnosis is usually late when the disease has already reached an advanced stage, for this reason, in the majority of cases, neoplasm dimensions, combined with the necessity of clear margins at least 1 cm around the tumor lead to large resections requiring reconstructive surgery with important functional implications. Today this aim can be reached through the use of microvascular free flaps that replaced classical local and regional flaps to ensure on one hand the oncologic radicality, on the other better functional and aesthetic results. In fact, quality of life gained great interest in the last years, become not only a secondary endpoint cure, while survival is the main outcomes for these patients. Microvascular flap surgery ideally could lead to a better control rate of the disease, because the possibility of bridging extended tissue defects, can push surgeons to perform more aggressive resections in order to achieve a truly oncological radical result especially in light of the close correlation between prognosis and disease free resection margins. During tumor resection not only of the tongue but also in the other site of the oral cavity we adopted the principles of compartmental surgery which advocate the removal of the compartments (anatomo-functional units) containing the primary tumor, eliminating the disease and potential muscular, vascular, glandular and lymphatic pathways of spread and recurrence this also could explain the improvement of DSS observed in our series even if we had a large number of patient with advanced stages of disease. The progressively increasing use of the anterolateral thigh perforator flap and the DIEAP-polygonal flap, that become our workhorses for head and neck soft tissue reconstruction, led to better results in terms of disease free margins of resection, also because their use as "on site tailoring" flap instead of "pre-marked" flap allows to tailor the flap at the end of the oncologic resection. We analyzed a cohort of 130 patients treated with reconstructive surgery affected by oral cancer from 2005 to 2013 and correlated survival to clinical and pathological parameters. 88.5% of patients was affected by SCC. We observed 46 (35.4%) women and 84 (64.6%) men in the sample with a mean age of 58.5 years. At the end of the follow-up period, 36 (27.7%) patients died, only 3 of them for other causes. The 5-year DSS rate was 67.8% (S.E.= 4.9%). In

univariate Kaplan-Meier analysis and in multivariate Cox regression model seven different variables were found to have a significant relationship with the disease-specific survival: T ($p=0.026$) and N ($p=0.0001$) status, clinical stage (according to UICC's TNM Sixth Edition) ($p=0.007$), margins of resection ($p=0.001$), extracapsular spread ($p=0.005$), recurrence of the disease ($p=0.00002$) and treatment modality (evaluated as surgery alone or surgery + RT/CHT) ($p=0.004$).

In our experience, the reconstruction of oral cavity defects with microvascular flaps combined with a compartmental surgery, can play an important role increasing survival in oral cancer patients.

Furthermore salvage surgery for recurrent oral and oropharyngeal SCCs with free flap reconstruction after chemoradiotherapy can be performed with manageable complications and a similar prospect of cure as following radiation alone. Unfortunately recurrence in regional lymph nodes and at the primary site and short disease-free interval (<6 months after primary treatment) are associated with reduced cure rates. Although minor complications are common after salvage surgery, major complications are uncommon and can be managed without significant sequelae. Also in our experience has shown that the use of free flaps may improve healing following salvage surgery by introducing well-vascularized, nonirradiated tissue. Free flaps are commonly used for surgical salvage to facilitate healing of through and-through defects, protect the great vessels from salivary contamination, and reconstruct mandibular defects. Regional flaps, such as the pectoralis major, are now mainly used in addition to a free flap or for salvage after flap failure.

INDICATIONS OF SIALENDOSCOPY AND REVIEW OF THE DECISION MAKING ALGORITHMS: OUR EXPERIENCE

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During the last 20 years, thanks to the technological advancements, new approaches have been proposed in the treatment of obstructive diseases of the major salivary glands. Although the total or partial removal of major salivary glands still remains an important therapeutic option, new methodologies have led to a reduction of cases in which a major surgery is necessary, offering highly effective therapeutic option (healing rates of up to 85% of cases of sialolithiasis) with a lower complications rate. Sialendoscopy is an excellent procedure that allows endoscopic visualization of the salivary ductal system, and also provides an alternative in treatment choice before considering an open surgery. The goal of treatment now is to preserve a physiologically intact gland, and at the same time to solve the obstruction of the gland (1-4).

Treatment algorithms for sialolithiasis and obstructive pathologies have been proposed by several authors and generally showed a consensus in the different glands concerning the size of the stones, the site of obstruction and the technologies available (laser for internal lithotripsy and external Shockwave Lithotripsy ESWL) (1,5,6).

The current clinico-diagnostic algorithm for any glandular swelling includes Ultrasounds and the use of diagnostic and therapeutic sialendoscopy.

The actual indications of sialendoscopy are: stones in the primary and intraglandular ducts, stenosis, foreign bodies, polyps, recurrent sialoadenitis, sialoadenosis.

In detail analyzing the sialolithiasis: small, mobile stones with diameters of 3 to 4 mm or less can be easily removed via simple basket extraction, while larger, impacted stones with diameters greater than 7 mm are generally treated with combined endoscopic and transoral/transfacial approaches (7). For stones between 4 and 7 mm, the best treatment depends on the technology available. If stones are too large for simple basket retrieval, they need to be fragmented before endoscopic extraction.

Concerning the parotid sialolithiasis, some authors (5,7,8) described different approaches, based on the size and location of the stones:

1. Anterior third of Stensen's duct (distal duct): interventional scialoendoscopy must be the first therapeutic option in case of stones < 7 mm, eventually combined the transoral removal.
2. Middle third, (middle, proximal duct): other options for stones >3mm include stone fragmentation ESWL or intracorporeal shockwave lithotripsy (Holmium YAG laser lithotripsy (5,9), electro-hydraulic lithotripsy (10,11), pneumatic lithotripsy (12-15) followed by interventional scialoendoscopy combined with transcutaneous or lifting approach.
3. in the posterior third of Stensen's duct, (intraparenchymal), sialendoscopy coupled with fragmentation techniques, combined surgery, or ESWL, are the only alternatives to parotidectomy.

In submandibular gland sialoliths, the current algorithm based on the localization of the stones:

1. Distal duct/papilla. If there are mobile ductal stones <5 mm, scialoendoscopy with basket retrieval may be the first attempt, papillotomy may be necessary; if the stone are impacted the transoral duct slitting is generally performed before the interventional sialendoscopy.
2. Proximal duct/hilum: small mobile stones < 5 mm interventional sialendoscopy is indicated trying to remove the stone with wire basket or grasping forceps; if stones are > 7 mm if they are palpable a transoral duct incision or combined endoscopic guided removal can be performed if fragmentation via ESWL or laser lithotripsy are not available.
3. Intraparenchymal: mobile stones <7 mm are suitable of removal via interventional sialendoscopy if they are impacted or for stone > 7mm up to 10 mm laser or ESWL can fragmentate them and allow the endoscopic removal.

In case of partial success or failure of the scialoendoscopy, endoscopically assisted transoral removal can be performed but sialoadenectomy still represents a definitive therapeutic solution also in case of failure and in case of intraparenchymal stones not fragmented by ESWL (16).

The characteristics of the stenosis may be assessed using ultrasound or MRI but in the recent years sialendoscopy yield to the introduction of a classification system so called LSD (Lithiasis, Stenosis and Dilatations) suggested in consensus meeting of 2007 in which the stenosis are classified according to the site, extension and presence of unique or multiple numbers (17). Sialendoscopy has the advantage of direct assessment, allowing differentiation between an inflammatory from a fibrous stenosis. The

majority of the former may be successfully treated conservatively (irrigation and intraductal steroid instillation), whereas the latter can usually only be managed by endoscopic controlled instrumental dilatation. Apart of papillotomy and distal duct incision, resection of the affected segment and duct repair are generally successful. Stent implantation is important to prevent restenosis and many authors advocate it even if there is still no universal consensus on this issue mainly regarding the time and positioning of stenting. In rare cases ligation of the duct with subsequent parotid atrophy is an option and avoid parotidectomy but success rate amount to minimally 50%. As an additional option, repeated intraglandular application of botulinum toxin may also be attempted as an alternative to removal of the gland.

The diagnostic algorithm of Stenosis or stricture of the submandibular glands and of parotid glands are illustrated in detail in figures 5-6.

The correct integration with therapeutic option such as laser lithotripsy or ESWL obviously depends on the technologies available in the Hospital, and without a lithotripter the endoscope use become expanded to bridge the difference between a large stone, preferably treated with ESWL and a stone requiring open or combined resection. For these reasons there are difference in stone treatment algorithms used by physicians who have access to ESWL and those who do not (6), mainly in terms of stones dimension.

In conclusion the analysis of literature reviews and our own experience indicate that continuous improvement of current methods and introduction of new ones, such as utilization of sialendoscopy

are mandatory in the treatment of pathological obstructions of salivary glands. Indication for a complete removal of the gland is becoming uncommon as a first line treatment although still indispensable in selected cases.

Hearing results of tympanoplasty with mastoid obliteration due to cholesteatoma Prognostic factors

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INTRODUCTION: The purpose of the study was to assess the factors affecting hearing in patients who were operated on due to chronic otitis media with cholesteatoma and underwent tympanoplasty with partial mastoid obliteration. Materials and methods: A retrospective clinical study of 76 consecutive patients undergoing procedures for active chronic otitis media with cholesteatoma has been carried out. All surgical interventions involved partial mastoid obliteration and restoration of the middle ear space by use of cartilage reconstruction of the tympanic membrane. Ossicular reconstruction was achieved with either a partial (PORP) or total titanium ossicular replacement prosthesis (TORP). Success was defined as ABG < 25 dB. The cases were classified and staged according to EAONO/JOS joint consensus statements on the Definitions, Classification and Staging of Middle Ear Cholesteatoma Edinburgh 2016. The appearance of the tympanic membrane, the type of cholesteatoma, intraoperative ossicular status, granulations in the middle ear were evaluated. Results: No cavity problem was seen. Sixty-six percent of patients had a postoperative air-bone gap of 25 dB or less. The ABG for the titanium PORP prosthesis was 16.3+/-9.7 dB, compared with 28.2+/-13.7 dB for the TORP prosthesis (P < 0.05). Revision procedures for functional failure were carried out in 15 patients. Conclusions: Our results suggest that tympanoplasty with titanium total ossicular replacement prosthesis reconstruction offers a stable improvement of the ABG. The tensa type cholesteatoma, missing malleus and the presence of granulation tissue in the middle ear were unfavorable prognostic factors.

KEYWORDS: cholesteatoma, mastoid obliteration, tympanoplasty, prognostic factors.

WORKSHOPS

Anatomy landmarks important for head and neck ultrasound

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Head and neck anatomy has the highest concentration of vitally important structures per examination voxel.

A short review of structures comprises: thyroid and parathyroid glands with adjoining trachea and esophagus, parotid, submandibular and sublingual glands, numerous lymph nodes stations along the great vessels of the neck.

We illustrate on CT and MRI axial, coronal and sagittal sections all the anatomy landmarks at the level of head and neck emphasizing on their importance in ultrasound imaging.

Correlating anatomy principles with imaging examination enables the surgeon to prepare the extent of surgical resection.

Mastering head and neck anatomy landmarks is important for numerous specialists: ENT surgeons, maxilo-facial surgeons, endocrinologists, oncologists, radiologists and last but not least family doctors.

KEYWORDS: anatomy, head, neck, imaging

HEAD AND NECK LYMPH NODES DIFFERENTIAL DIAGNOSIS

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Higher incidence of neoplasm in ENT translates into a growing interest for quick and accurate differential diagnosis between benign and malignant adenopathy. Ultrasonographic criteria for analyzing lymph nodes are: dimensions, margins, ecostructure, Doppler signal and effect on neighboring structures. Differential diagnosis of lymph nodes ranges from benign lesions such as reactive adenopathy, tuberculosis and sarcoidosis to malignant metastatic pathology from salivary, laryngeal and thyroid carcinomas.

The main advantage of sonography in investigating lymph nodes derives from ergonomic and quick exam, lack of radiation and possibility of real time seriated evolution analysis.

KEYWORDS: ultrasound, diagnosis, nodes, neck, head

Thyroid gland sonography from A to Z

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In 2000 Globocan network predicted that virtually 1 in 2 women and 1 in 5 men will develop a thyroid pathology till the year 2020, and nowadays this trend seems to be unfortunately right.

From pathology point of view there is a plethora of entities afflicting thyroid gland. From benign lesions such as acute thyroiditis, autoimmune thyroiditis and cysts to borderline nodules and malignant pathology such as follicular carcinoma and the fastidious anaplastic carcinoma.

Ultrasonography is the modern stethoscope indispensable for an accurate and fast diagnosis. We illustrate from our case series the sonographic criteria for differential diagnosis in thyroid pathology: dimensions, borders, ecostructure, Doppler signal, presence of microcalcifications or necrosis, mass effect on neighboring structures such as carotid arteries, recurrent laryngeal nerves, trachea or esophagus.

This subject will interest endocrinology specialists, ENT surgeons, general surgeons and even general practitioners, all of the aforementioned being involved in the correct management of patients with thyroid pathology.

KEYWORDS: ultrasound, diagnosis, thyroid, gland, tumor

ABC ultrasound of salivary glands

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World Health Organization recently updated the data regarding the incidence and prevalence at worldwide level of salivary glands pathology. The differential diagnosis of salivary gland masses focuses on sialadenitis and sialolithiasis, pleomorphic adenoma, Warthin tumors, mucoepidermoid carcinoma, neoplastic change of previous existing adenomas, and many other pathologic entities.

We will illustrate from personal cases the various criteria – dimension, margins, eco-structure, Doppler signal, micro-calcifications - used for differentiating benign from malignant salivary masses.

Adopting a standardized protocol for head and neck ultrasound will prevent the ENT specialist from the mirage of one major lesion and omitting possible regional lymph node involvement.

We will also quickly review the basic notions necessary to use elastography in salivary gland imaging.

In conclusion this course will interest both the young ENT specialist, but also will present newer techniques for the more experienced audience.

ACKNOWLEDGEMENT: The workshop was sponsored and all the examinations were performed on Sonoscape Ultrasound Equipment offered by S.C. Liamed S.R.L. Brasov, www.liamed.ro

KEYWORDS: ultrasound, diagnosis, salivary, glands, tumor

Novel techniques – nasal and larynx ultrasound

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We aspire to grow the awareness of the scientific community regarding the use of sonography in rhinology and laryngology.

At the level of the nasal region sonography can be used to visualize the nasal vault, maxillary and frontal sinus. We reviewed current series of cases with maxillary sinusitis, frontal osteoma and traumatic injuries at the level of the nose.

Laryngeal landmarks easily identified on sonography are hyoid bone and pre epiglottis region, thyro-hyoid membrane, thyroid cartilage, cricoid cartilage, and tracheal rings. We present cases with acute inflammation of the epiglottis, vocal cord paralysis after thyroid surgery, benign and malignant laryngeal masses.

Although for an accurate planning of surgery computer tomography is necessary, recent technological advances and wide scale availability of powerful equipment revitalized ultrasonography.

Because it lacks irradiation and permits quick serial imaging is suitable for pediatric cases and pregnant women.

In areas where specialist ENT consults are difficult to access, sonography could improve the diagnosis given by primary healthcare providers.

Laryngeal and nasal ultrasound could become part of the extended FAST protocol in emergency settings.

KEYWORDS: ultrasound, nasal, larynx, emergency, anatomy

News in diagnosis and treatment apnea of snoring and sleep

K. Hormann

Direktor Univ. HNO-Klinik, Präsident EASM (European Academy of Sleep Medicine)

Obstructive sleep apnea (OSA) as a multifactorial disease is treated with continuous positive airway pressure (CPAP) as the gold standard. Yet, if patients suffer from CPAP incompliance, traditional OSA surgery only targets morphological changes of the upper airway while neglecting functional issues.

The mechanisms causing an upper airway collapse have not been completely understood up until now. Yet, a decline in pharyngeal neuromuscular activity during sleep in obstructive sleep apnea (OSA) patients has been identified. This knowledge has supported the notion that stimulation of

the upper airway muscles may prove effective in treating this condition. Previous reports have indicated that various upper airway dilator muscles, particularly the genioglossus, contribute to stabilizing the upper airway during sleep. As a result, various actions have been taken to selectively stimulate only the upper airway dilator muscles. This has been achieved using transcutaneous, percutaneous, and transmucosal stimulation of the hypoglossal nerve.

With this advent of upper airway stimulation, and in particular hypoglossal nerve stimulation as a treatment option, a highly effective, clinically proven and functional therapy with good evidence is available. Since its first introduction, the therapy has evolved in terms of the used technology, safety, efficacy and selection criteria. In the beginning it was solely used as an experimental procedure, yet, with increasing experience, hypoglossal nerve stimulation more and more becomes clinically available in specialized centers. Since the advent of these IPGs as treatment for OSA, quite some time has passed and their use has become more widespread around the world.

This symposium gives a comprehensive overview of current and upcoming therapy options, the specific advantages of different approaches, the selection criteria and screening process, relevant clinical data, and a description of the different procedures. New therapeutic options appear to be a long-term, low-morbidity treatment for moderate-to-severe OSA patients suffering from CPAP incompliance.

New Perspectives in Advanced D.I.S.E.

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Drug Induced Sedation Endoscopy (DISE) allows to improve the diagnosis and the surgical strategy of Obstructive Sleep Apnea (OSA).

The aim of this study is to improve the level of reliability of DISE. We are investigating the efficacy of two instruments of sedation evaluation using Propofol. The first and less used is the Auditory Evoked Potentials (AEP) index, the second and standard one is the Bispectral Index (BIS).

We recruited 15 patients (aged 32–79) affected by mild OSA, as defined by the American Academy of Sleep Medicine (AHI 5-15 ± 3).

During DISE we record the following parameters: endoscopic images, polygraphic recording, drug pharmacokinetic parameters, AEP index and BIS index. All these parameters, together with a camera pointed at the patient, are simultaneously shown on a single monitor and video-recorded. The continuous visual monitoring of both the drug pharmacokinetic parameters and the AEP index (compared to BIS) reduces the risk of drug accumulation which leads to central apnea and improves the safety of DISE through these 5 Video Streams Experimental System (5VS es).

In conclusion, our preliminary data suggest that during Propofol-D.I.S.E the 5VS es setting and the philosophy of using AEP index may improve the clinical interpretation and safety of DISE and may catalyze all future researches.

KEYWORDS: Obstructive Sleep Apnea (OSA), Drug Induced Sedation Endoscopy (DISE), Sleep Endoscopy, 5 Video Streams Experimental System (5VS es), Auditory Evoked Potential (AEP), Middle Latency Response (MLR), Middle Latency Auditory Evoked Potential (MLAEP), Bispectral Analysis (BIS), Target Controlled Infusion (TCI).

Inner Ear Malformations In Pediatric Ent – Our Experience

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University of Medicine and Pharmacy "Carol Davila"

Inner ear malformations are responsible for sensorineural hearing loss in pediatric patients. Neonatal screening and cochlear implanting can deliver a good long term rehabilitation and a normal education process.

OBJECTIVE: to study the incidence of inner ear malformations in patients with bilateral sensorineural hearing loss and cochlear implanted in our pediatric ENT Department.

MATERIAL, METHOD: all the patients admitted to our department and diagnosed by imaging and auditory diagnostic tests (ABR, ASSR) had CT scans performed and all inner ear lesions were reviewed.

RESULTS: between 2009 and 2016, 146 cases have been admitted to our clinical department. 11 cases presented inner ear malformations: 3 cases with incomplete partition type III (IP), 3 with cochlear hypoplasias (CH) and 1 case with common cavity (CC). 50% of hypoplasia cases and 33%

of IP did not obtain a long term satisfactory auditory verbal rehabilitation.

CONCLUSION: inner ear malformations require a good imaging evaluation with surgical approach only in tertiary referral centers. For cochlear hypoplasia cases, the use of auditory brainstem implants and other forms of rehabilitation can be discussed with the patients.

KEYWORDS: inner ear, malformations, cochlear implants

How to manage the complication in cochlear implantation

Adriana Neagos

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Cochlear implants (CI) are the preferred method of treatment for patients with severe to profound bilateral sensorineural hearing loss and unilateral deafness. CI surgery is a safe procedure with a low frequency of major complications, representing an effective therapy for patients with sensorineural hearing loss who do not respond to hearing aids. Sometimes the device has a risk of failure in performance, as does any active medical device. This can be the most common cause of implant removal. Otitis media in pediatric cochlear implant patients is a common event and usually does not lead to complications of the cochlear implant. When the ear infection spreads the scalp using the antibiotics, it is possible to treat the infection, without to eliminate the implant. In children with inner ear malformation cochlear implant can be successfully performed. In malformed inner ear the risk of CSF leak should be anticipated during surgery. This complication, must to be solved as soon as possible is. In complication, the decision of reimplantation, is real problem. It depends of type of complication, and time, The length of time from implantation to the occurrence of the complication

Medical communication – Therapeutic efficiency and fidelity

O. Arseni

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We have to deal with many patients, everyone wishes a good health which is the most powerful need for all of us, but the least valued in Romania. Most of the patients want rapid recovery, becoming, from time to time, to patients on duty. Each consultation is accompanied by an intense professional exercise in which we want to find the shortest path to the patient's health. Only here the differences between the doctor and the patient begin to emerge - what does health mean to each one, what the patient wants and what he wants his doctor to go the way to "health"?

The proposed workshop aims to provide elements and techniques to facilitate communication with the patient. Communicating with the patient follows two important directions: empowering and motivating it. A motivated and responsible patient shortens our way to the expected therapeutic success. Positive communication, in which the patient is involved in understanding what is important to do and why, manages to strengthen the doctor-to-patient relationship, in fact to strengthen a partnership in which each has goals and responsibilities. We want to identify what are the elements of the communication process and how we can effectively drive this process so that we maximize our results. Leadership elements will help us develop a medium and long-term communication process that will ease the management of the change and adaptation processes the patient has to go through.

WORKSHOP AGENDA:

1. What does it mean to be convincing?
2. Management of the communication process
3. Leadership in communication
4. Physician-Patient Communication
5. Approaching Personality Types

FREE PAPERS**PHOTOTHERAPY IN ALLERGIC RHINITIS****S. Baschir, Radmila-Anca Bugari**

Vasile Goldis" Western University of Arad, Romania

OBJECTIVES OF THE STUDY: The main objective is to study phototherapy for the treatment of allergic rhinitis as compared to placebo. We want to apply an efficient, safe therapeutic method, with no notable side effects, cheap to improve the health of our patients, to improve their quality of life.

METHODS: A multicenter randomized study was conducted to investigate the effect of placebo-controlled rhinotoxic therapy for a total of 187 patients who met the inclusion / exclusion criteria. The effect of rhinophototherapy was investigated, investigating: nasal flow (rhinomanometry) and individual scores for subjective and objective symptomatology.

RESULTS: Phototherapy-treated patients = 65, placebo treated patients = 32. Evolution of phototherapy lot: very good improvement- 67%, good improvement- 28%, unfavorable evolution- 5%. Analyzing the placebo treated group: very good results - 10%, moderate improvement - 43%, unfavorable evolution - 47%.

CONCLUSIONS: Phototherapy is an effective therapeutic method in the treatment of patients with allergic rhinitis, is a well tolerated therapy with minor side effects, easy to apply and monitor.

KEYWORDS: rhinophototherapy, allergic rhinitis, rhinomanometry.

CURRENT MEDICAL TREATMENT IN CHRONIC RHINOSINUSITIS**Elena Patrascu^{1,2,3}, C. Manea^{1,2,3}, C. Sarafoleanu^{1,2,3}**¹"Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania²CESITO Centre, "Sfanta Maria" Clinical Hospital, Bucharest, Romania³ENT and HNS Department of "Sfanta Maria" Clinical, Bucharest, Romania

BACKGROUND AND AIMS: Chronic rhinosinusitis is an important health problem, with great impact upon quality of life. Identifying the most appropriate treatment of this disease represented a constant issue in the medical world. The management of this disease is usually divided in two main directions: medical treatment and surgery. The goals of the medical treatment are to diminish mucosal edema, to stimulate sinusal drainage and to cure possible infections. This paper is a short review of the indications and difficulties of the current medical options.

MATERIAL AND METHODS: According to the latest studies, medical treatment requires a combination of several classes of medications: oral or topical glucocorticosteroids, antibiotics and saline nasal lavage. A proper antibiotic course should be administered for a period of 3-4 weeks, preferably according to antibiogram obtained from nasal secretions.

RESULTS: Regarding the fact that rhinosinusitis is a chronic inflammatory benign recurrent disease, it is essential to initiate a medical treatment, in non-complicated cases. In case of failure, patients must be referred patients to surgical treatment, with postoperative medical cure.

CONCLUSION: The current management of chronic rhinosinusitis is still empirical or based on experts' opinions. Nowadays, it is essential the need of developing new therapeutic molecules, etiopathogenic-guided and for establishing long-term effects of the medical treatment. The main problem remains to define what is means to conduct a maximal medical treatment and to try not to over-indicate surgical treatment. We must not forget the important problem that is represented by antibiotic resistance, permanently increasing worldwide, due to uncompliant patients.

KEYWORDS: rhinosinusitis, medical treatment, corticosteroids, guidelines

THE IMPACT OF ANTIBIOTIC RESISTANCE IN RHINOSINUSITIS MEDICAL TREATMENT

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Acute bacterial rhinosinusitis (ABRS) and chronic rhinosinusitis (CRS) are an important health problem worldwide. Although they represent common conditions, nowadays we encounter some difficulties. These difficulties are linked to the continuous growth of antibiotic resistance. Also another problem could be the fact that the ABRS and CRS microbioma is changing. The aim of the study was to identify the bacterial spectrum in ABRS and CRS and to find the actual correct antibiotic treatment.

We performed a prospective study on adult patients with acute and chronic rhinosinusitis - clinically diagnosed according to EPOS criteria and microbiological confirmed. Samples were made from middle meatus under endoscopic control and by sinusoscopy or intraoperative. Antimicrobial susceptibility testing was performed according EUCAST 2017.

Our study emphasized the fact that some changes are happening concerning the microbioma in rhinosinusitis, either acute or chronic. Such being this case and considering the high rate of antibiotic resistance encountered in the present study, a new approach in antibiotic treatment of mentioned condition is required.

The present study highlights the fact that rhinosinusitis is a dynamic disease that demands specific adapted treatment to nowadays background.

THE ROLE OF OXIDATIVE STRESS IN CHRONIC RHINOSINUSITIS WITH NASAL POLYPS: A NEW PERSPECTIVE OF AN OLD PARADIGM

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BACKGROUND: Chronic rhinosinusitis with nasal polyps (CRwNP) is considered a multifactorial pathology with negative impact on quality of life and the huge socio-economic effects. Despite of multiple studies, their causes have not been fully elucidated until now that limits the etiopathogenetic treatment and pathological process is expressed by a great tendency of recurrence. The aim of this review was to summarize the role of oxidative stress (OS) in the pathogenesis of CRwNP through the prism of a new perspectives for nuancing the treatment.

MATERIAL AND METHODS: A review of the literature on the role of oxidative stress in the pathogenesis of CRwNP was undertaken. The relevant information was identified using searches of electronic databases.

RESULTS: CRwNP is considered to be a response of sinonasal tissue in the inflammatory state, associated with OS and production of reactive oxygen species (ROS) that are inherent in human metabolism, causing the injury to tissues. Nasal polyps formation can be prevented by inhibition of ROS (arising due to the influence of genetic polymorphism of enzymes in the antioxidant system, due to the action of sinonasal biofilm, due to the action of bactericidal antibiotics, due to the air pollution) with some antioxidant remedies.

CONCLUSIONS: This review demonstrates that there is a strong relationship between OS and the pathogenesis of CRwNP through the prism of new perspectives. The antioxidants can have a preventive role, but more studies are necessary to evaluate the efficacy of the antioxidant therapy.

KEYWORDS: chronic rhinosinusitis with nasal polyps, oxidative stress, reactive oxygen species, antioxidants

THE ROLE OF CALDWELL LUC PROCEDURE FOR CHRONIC MAXILLARY RHINOSINUSITIS IN ENDOSCOPIC SINUS SURGERY ERA

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It is the 120th year since George W. Caldwell described a surgery technique for maxillary sinusitis: the canine fossa approach with nasal drainage. Introduction of endoscopic sinus surgery made an improvement in all aspects of disease: lower failures of surgeries, lower morbidity, lower costs, improvement in quality of life of patients. The aim of this study was to see if there is any role for Caldwell Luc approach in chronic rhinosinusitis. We made a prospective study between 2009 – 2016 in "Sfanta Maria" Hospital – ENT Department, on consecutive adult patients with isolated chronic maxillary rhinosinusitis underwent on surgical procedures. Indication for surgeries was made based on Sarafoleanu-Iosif score (correlation between endoscopic and histopathologic aspect of sinus mucosa).

We had 362 patients with isolated maxillary chronic rhinosinusitis: 44 of them underwent Caldwell Luc procedures and 318 had endoscopic sinus surgery (maxillary antrostomy). We observed that in the beginning of the study, the percent of patients with Caldwell Luc procedures were around 16% but in the last years of observation, the percents dropped down up to 9% of total patients with chronic maxillary rhinosinusitis.

Even we are living in the endoscopic sinus surgery era, there are still indications for open procedures for chronic maxillary rhinosinusitis. In our days, this procedure is still in use but less preferred by surgeons.

KEYWORDS: Caldwell Luc, endoscopic sinus surgery, chronic maxillary rhinosinusitis

UNILATERAL FRONTAL SINUS ASPERGILLOSIS – COMMENTS ON A CLINICAL CASE

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Fungal rhinosinusitis has a paramount importance in recent practice in sinus pathology affecting one or more paranasal sinuses. Current researches on this pathology insist on the etiology and on the differential diagnosis. There is still a debate on the establishment of surgical protocols according to major and minor criteria for the diagnosis of fungal sinusitis. Isolated frontal sinus aspergilloma is rare and only 5 cases are described in literature to our knowledge.

We report a case of a patient with a left frontal sinus aspergilloma associated with ipsilateral chronic ethmoidal and maxillary sinusitis, emphasizing the importance of imagistic, endoscopic, clinical differential diagnosis, as well as the elective therapeutic treatments in this pathology. The endoscopic approach to the frontal sinus is considered the best way to deal with frontal sinus aspergilloma, but it is sometimes not sufficient to guarantee the complete removal of the fungus ball.

SURGICAL AND MEDICAL MANAGEMENT OF NASAL OBSTRUCTION IN SLEEP RELATED BREATHING DISORDERS

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Inability to breathe through the nose is a recognized cause of disordered breathing during sleep. Sleep disordered breathing can result from and be worsened by nasal obstruction. Nasal obstruction must be considered to be a cofactor in pathophysiology of sleep-related breathing disorders (SRBD).

The clinical aspect of SRBD include primary snoring, upper airway resistance syndrome, obstructive sleep apnea syndrome (OSAS), and hypoventilation syndrome related to obesity.

My study consist in 30 patients with nasal obstruction and SRBD. Nasal examination by anterior rhinoscopy (fiberscopy) and measurement of nasal resistance by rhinomanometry and polysomnography pre and posttherapy. The authors present surgical and medical management of nasal obstruction in SRBD.

KEYWORDS: nasal obstruction, sleep-related disorders medical and surgical management.

ANTI HER 2 NEU TARGETED THERAPY IN A CASE OF METASTATIC HEAD&NECK CANCER

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A 69y old nonsmoking man with carcinoma of the left submandibular gland excized and left latero-cervical lymphadenectomy (08.10.2012 Bucharest) with metabolically positive residual lymphnodes at a 18FDG /PET/CT (

16.11.2012 SUV max 8,7) had the following histopathologic result:

Ductal carcinoma with desmoplastic reaction, with areas of comedo necrosis and perilesional lymphocytic inflammatory infiltrate, perineural invasion and invasion of the adipose and fibrous tissue. Ten lymph nodes having the structure of carcinoma metastasis.

He underwent re neck dissection on 26.11.2012 -AKH WIEN with resection of the left base of the tongue. Histopat. Exam. revealed 8 of 16 lymphnodes invaded from the left supraclavicular area +level 5 area with vascular invasion. Postoperative PET /CT (04.12.2012) was negative for metabolically activities. Concomitant radiochemotherapy was administered in Jan-febr. 2013 (Amethyst Romania: RT66 Gy with Cisplatin 50 mg/m² days 1,8,15,22,29,36,43.

PET/CT on 22.10.2014 discovered a left apical lung nodule which was resected on 14.11.2014 (Sanador Hospital Bucharest) Pathologic exam revealed a lung metastase of salivary gland duct carcinoma and IHC found a c-erbB2 positive (3+) overexpression.

Chemotherapy was initiated (Cisplatin+5 FU) (one cycle) with a bad tolerance. CTC (Circulating Tumor Cells) showed the presence of 85% of CTC with Her 2Neu positivity.

Genetic testing of the malignant tissue (ONCOMASS-Germany) found a HER-2 Neu amplification (30.03.2015). So we started an anti Her-2Neu targeted therapy with Herceptin 600mg /month-6cycles (march-august 2015). The favorable response was monitored clinically, imagistically, EF on echocardiography and on repeated liquid biopsies.

This case reflects the good clinical results after targeted therapy with monoclonal antibody after identification of the driver gene and the future possibilities of CTC monitoring in the follow-up of a such a patient (H&N cancer, stage IV)

MINIMALLY INVASIVE TREATMENT FOR TUMORS OF THE HEAD AND NECK USING SELECTIVE INTRAARTERIAL CHEMOINFUSION

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INTRODUCTION: We aim to offer a solution for oncologic patients suffering from tumors of the head and neck that cannot benefit from any other options of treatment.

Our take on the matter is the injection of high dose chemotherapy via a catheter placed in the artery or arteries feeding the tumor.

MATERIAL AND METHOD: For the current study we treated two patients, one suffering from a laryngeal tumor with secondary tracheotomy and

the other one with a nasal tumor, invading the orbit and sinuses.

The radiologic equipment used for the procedure was the Siemens Artis dFa angiograph, positioned in a hybrid OR. For the procedures we used 5F femoral arterial sheaths and a 4F VERTEBRAL catheter for the both patients. The catheter has been placed in the external carotid artery on the most affected side. Afterward, a large volume of chemotherapy solution has been injected using a Medrad ProVis mark V injector, using 150 ml single use syringes. Substances and doses used have been 250 mg of Cisplatin for the nasal tumor, while the laryngeal tumor received 1 g of 5-fluorouracil, both in one sitting.

RESULTS: The patient with the laryngeal tumor regained the ability to swallow solid food for a few weeks, afterwards his condition started to decline. The patient suffering from the nasal tumor has had no more epistaxis episodes after the chemoinfusion, her general condition improving in the short term.

CONCLUSIONS: Selective arterial chemoinfusion represents a valuable option for the treatment of end stage oncologic patients with tumors of the face and nose.

Using large doses on chemotherapy treatment targeted to a single artery lowers the systemic dose considerably, making the procedure less uncomfortable for the patient.

While maintaining an angiosuite blocked for 4-5 hours does not represent a viable option from an economical standpoint, placing a catheter under fluoroscopy followed by injector mediated drug administration in a patient room might prove feasible.

BALLOON SINUPLASTY – INDICATIONS AND LIMITATIONS

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INTRODUCTION: Balloon sinuplasty is a minimally invasive procedure in endoscopic sinus surgery, introduced since 2005 in the USA and worldwide spread, for patients who suffer from chronic rhinosinusitis.

AIMS AND METHODS: This article highlights the indications and the limits of this procedure with the review of specialty literature. It's a descriptive article about an alternative and adjunct endoscopic sinus surgery.

RESULTS: This technique of sinus surgery is used to dilate the obstructed or stenosed anatomical sinus pathways and restoring normal drainage. It's indicated only for "mild to moderate" cases of chronic rhinosinusitis, and it's limited to frontal, sphenoid and maxillary sinuses.

CONCLUSIONS: Balloon sinuplasty is an alternative treatment option for chronic rhinosinusitis, and it can be performed in either a surgery center or as an outpatient procedure at a medical office. It appears to be a safe and effective procedure but for limited indications. We also want to warn about the possible incidents and complications when the method is improperly used.

ADVANTAGES OF VMAT-IMRT TECHNIQUE IN NASOPHARYNGEAL CARCINOMA

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Nasopharyngeal carcinoma is a radiosensitive malignant tumor, therefore the main method of treatment is radiotherapy. The need to obtain good results in loco-regional tumor control led to improving radiotherapy techniques. Volumetric modulated arc therapy (VMAT) is one of the most promising radiation methods which produces superior target coverage, improving the protection of organs at risk and reduces treatment time.

MATERIAL AND METHODS: We performed a retrospective study on 30 patients diagnosed with nasopharyngeal cancer and admitted in "Sfanta Maria" Clinical Hospital between October 2012 and December 2014. All patients have undergone volumetric modulated arc therapy – intensity-modulated radiation therapy (VMAT-IMRT) associated with induction or concurrent chemotherapy. At the end of the treatment, patients were followed up at one, three and six months, and then every six months for 2 years.

RESULTS: At the end of the radio-chemotherapy treatment, 27 patients (90%) had a complete tumor and lymphatic response and 3 of them (10%) presented a partial response. At the end of the follow-up period, we observed 5 patients with recurrences, including 2 deceased.

CONCLUSION: VMAT-IMRT associated with chemotherapy is an effective treatment modality of nasopharyngeal carcinoma, demonstrated by high rates of cure, good tolerability and low incidence of toxicity/side effects.

Until the appearance of the new methods of treatment, VMAT-IMRT technique represents an optimal choice for treatment plan in nasopharyngeal carcinoma.

THE PARTICULARITIES OF RHINOPHARYNX CARCINOMA OPERATED CASE

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Rhinopharyngeal carcinomas are rare in Europe and America, but their incidence is increased in the south of China, and they are twice as common in men as women and occur after 40 years. There is a genetic predisposition (HLA antigens associated with this carcinoma are described). The role of Epstein-Barr virus in the pathogenesis of these tumors is currently recognized. Nitrozamines from smoked fish and inhaled formic aldehyde in the workplace in religious rituals are recognized risk factors in the development of these tumors.

Macroscopic can be infiltro-ulcerated or infiltro-vegetative. The most common tumors are epidermoid carcinomas and lymphoepithelial tumors, together accounting for 75% of the tumors.

The particularities in our case were: non-smoking patient, the anatomopathological type (lymphoepithelial carcinoma), the well-defined vegetative macroscopic aspect (absence of infiltration and ulceration), the nasal obstructive onset with the absence of bleeding and adenopathies (on MRI, CT)

In surgical treatment, was used ablation under endoscopic control by bipolar forceps. The histopathological outcome was lymphoepithelial carcinoma. Postoperative evolution and 4 month follow up was favorable.

ORIGINAL FLAP DESIGN IN TOTAL NOSE RECONSTRUCTION USING A TISSUE EXPANDER

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INTRODUCTION: Oncologic management of large tumors of the nasal cavity, with skin invasion or bone erosion, involves extensive resection surgery that can cause important tissue defects in order to define appropriate safety margins.

Covering these defects is a challenge taking into account the local particularities and implicitly the aesthetic aspect of the facial region, so one can opt for a simultaneous resection-reconstruction or postpone for a second surgery.

The aim of this paper is to present a clinical case of total nose reconstruction using a tissue expander with a mediofrontal flap.

MATERIALS AND METHOD: The challenge of total nasal reconstruction results from the complexity of regional particularities, anatomical structures involved and the need of achieving a good functional outcome. Complete diagnosis based on imagistic and endoscopic evaluation as well as certified histopathological examination led us in choosing total nasal reconstruction as surgical cure.

In this case, firstly a tissue expander was placed, after which in a second intervention, the resection and reconstruction of the nasal region were performed.

RESULTS: Due to a careful preoperative evaluation with the stabilization of the comorbidities and careful preparation of the flap, as well as choosing the appropriate surgical technique, the postoperative results were extremely good, both functional and aesthetic.

CONCLUSION: The purpose of the intervention is to completely remove the tumor without tumoral arrest and to cover the remaining important defects thereby improving the patient's quality of life.

The technique adopted with the use of the tissue expander is of real importance in terms of reconstructive surgery, especially in that involving an important aesthetic impact such as total nasal resection.

INVOLVEMENT OF HPV INFECTION IN OROPHARYNGEAL CANCER

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Oropharyngeal cancer has an uprising prevalence in the last years, besides alcohol and smoking, HPV association being a factor of low prognosis. HPV genotyping should be performed routinely for oropharyngeal cancer. This review will focus on the important differences such as epidemiology, symptomatology, treatment between HPV- positive oropharyngeal cancer and HPV-negative cancer. In the presence of precursor lesions, new detection strategies have to be fulfilled, such as identifying high-prevalence disease in population and also screening tests.

KEYWORDS: HPV infection, oropharyngeal cancer, precursor lesion

TREATMENT ASPECTS IN PRESBYPHONIA

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Elderly patient dysphonia is a condition requiring a thorough investigation protocol to achieve an effective treatment with the resolution of speech impairment.

After the exclusion of vocal chords pathology (carcinoma, Reinke edema and paralysis), vocal damage from systemic diseases (stroke, respiratory diseases and arthritis) or degenerative changes in the structure and function of mucosa, muscles or peripheral nerves, the diagnosis of presbyphonia is established.

Presbyphonia defines vocal changes related to the older age of the patient.

The first treatment line is voice therapy, generally directing the patient to a phoniatriy specialist. Refractory cases of voice therapy may benefit from voice amplification or medialisation by injection or thiroplasty.

Alteration of voice parameters can alter the quality of life, limiting the social interaction of the elderly.

KEYWORDS: presbyphonia, older, voice disorders

ENDOSCOPIC APPROACH OF INVERTED PAPILLOMAS

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INTRODUCTION: Inverted papillomas are benign tumors of the epithelial layer, that begins to grow inward with respect to the basal membrane, but extensive and invasive. This type of tumors can be found in the nasal cavity or the sinuses, but their tendency to local expansion is the reason

they can invade vital structures. The three main problems associated with this pathology are the high recurrence rate, the tendency to local extension and the possible turn-over to squamous cell carcinoma. Complete surgical resection with drilling of the insertion area is the gold standard in therapy today. A histopathological examination of the resection piece must be done, due to the risk of malignant degeneration.

MATERIALS AND METHOD: Thru this paper we wish to present the correct endoscopic approach of patients with inverted papillomas, the right indications and limitations of the method. The approach associates good results, depending on the extent of the lesion and the abilities and experience of the surgeon.

RESULTS AND CONCLUSIONS: A minimally invasive endoscopic approach is more easily accepted by the patient and involves a shorter recovery and reduces the costs. However, the most important aspect remains the complete resection of the lesion. We consider that for surgeons with the necessary expertise the intervention can result in a positive outcome, with no recurrence, in safety conditions. Nowadays, with the tendency towards minimally invasive procedures, we must take these options into account whenever possible.

KEYWORDS: inverted papilloma, endoscopic approach

POSTTRAUMATIC MENINGOENCEPHALOCELE – ENDOSCOPIC SURGICAL SOLUTION

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The authors present a case of meningoencephalocele, on a 34 year old patient who suffered a traumatic injury 15 years ago. The patient had an episode of acute meningitis annually in the last 3 years, as well as nasal liquorrhea, in small quantity, for a short time. The endonasal examination revealed the presence of a polypoid tumor mass, without pulsations, originating from the ethmoidal roof. The imagistic tests (CT scan, MRI) established the diagnosis of meningoencephalocele. We decided for an endoscopic approach, with total exeresis of meningoencephalocele together with endoscopic closure of the bony defect and dural breach at the level of lamina cribrosa. The evolution was favorable, with complete remission of the algic symptomatology and of nasal liquorrhea.

KEYWORDS: meningoencephalocele, nasal liquorrhea, endoscopic sinus surgery

ENDOSCOPIC RESECTION OF LARGE VASCULAR TUMORS OF THE NOSE AND SINUSES

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BACKGROUND: Vascular tumors of the nose cavities are a rarely type of tumors documented in the literature characterized by a histological diversity. Their management is not well codified, but it can make use of the modern imaging and endoscopic surgery. This study points out the effectiveness of the endoscopic approach for the treatment of vascular lesions such as angiofibroma, hemangioma and hemangiopericytoma involving the nose and paranasal sinuses.

MATERIAL AND METHODS: We study retrospectively several vascular tumors of the nasal cavities collected between January 2013 and June 2017, in the Department of ENT of Sfanta Maria Hospital. The management of these tumors was based on ENT clinical examination followed by nasal endoscopy, imaging, biopsy, and some angiography for embolization.

RESULTS: The principal symptom of all patients was recurrent epistaxis. In all the cases studied the tumors were totally removed endoscopic and the postoperative histological exam confirmed the clinical suspicion. We followed-up all our patients at 2 weeks and 1,3,6 months after the surgery with nasal endoscopy and CT/MRI

DISCUSSIONS: Endoscopic treatment alone is an effective approach for the removal of selected cases of vascular tumors but far more important

then the surgical treatment, it is the correct diagnosis managed in a brief amount of time which not allows the tumoral tissue growing. The endoscopic surgery provides a shorter period of hospitalization, no scarring and a better follow up (surgical landmarks) with a progressive extension of the indications (medium to large tumors).

KEYWORDS: endoscopic surgery, vascular tumors, management.

OPTIC NERVE DECOMPRESSION IN CRANIOFACIAL TRAUMA. CASE REPORT

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INTRODUCTION: Traumatic optic neuropathy is an acute injury of the optic nerve caused by severe head trauma, especially to the forehead and the middle face.

The injury to the optic nerve is usually the result of transmitted shock to the optic canal. Optic nerve sheath hematoma or orbital hemorrhage can also be a cause of traumatic optic neuropathy by direct compression.

The diagnosis of this pathology is clinical, but for a better assessment of the lesions, imagistic evaluations are mandatory. CT scans are usually used to visualize the optic nerve and the optic canal.

The classification of this pathology can be made according to the site of injury (optic nerve head, intraorbital, intracanalicular or intracranial) or the mode of injury (direct or indirect).

MATERIALS AND METHOD: The surgical treatment of traumatic optic neuropathy can vary. The approaches can be intracranial, extracranial, orbital, transthemoidal, endonasal or sublabial. The election of the surgical technique should be made by considering the risks and benefits of the intervention as well as the patient's expectation and also on the experience and training of the surgeon. We will present a selected clinical case of posttraumatic optic nerve neuropathy treated using minimally invasive transthemoidal decompression. Preoperatively, investigations that analyze the optic nerve were made.

CONCLUSIONS: Optic nerve decompression plays an important role in the recovery of visual acuity. Delaying the treatment can lead to permanent blindness. This pathology is treated both medically and surgically, but there is no standard protocol for it, due to a great difficulty to systematize the fractures.

KEYWORDS: orbital decompression, optic nerve, endoscopic approach

THERAPEUTIC APPROACH OF A GIANT FRONTAL OSTEOMA ON A 12 YEAR OLD CHILD – CASE PRESENTATION

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Osteoma represents the most frequent sinonasal benign tumor, usually located in the frontal sinus. It has a slow growth, with an accidentally appearance on a radiologic exam. The initial symptomatology is due to ostial obstruction and encloses pain and facial pressure. During its development, osteomas induce local deformities and orbital and/or intracranial complications. The necessary investigations that complete the patients diagnostic comprises of personal history, clinical, endoscopic and imagistic findings. Osteomas treatment is surgical.

MATERIAL AND METHODS: The authors display the case of a 12 year old girl that presented important deformation of the left frontal region, with inferior deviation of the eye. The CT-scan revealed a bony tumor mass originating in the left frontal sinus. Because of the patient's age, tumor size and future expectations regarding facial growth, the treatment of choice was a combined approach which insured tumor resection and insertion

of a titan plate that ensures a convenient cosmetic appearance during puberty.

RESULTS AND CONCLUSIONS: Combined, external and endoscopic approach secured complete resection of the frontal osteoma, with optimal sinus drainage and the possibility of implementing reconstructive measures that assured sinus functionality as well as the normal esthetic appearance of a child during growth period.

KEYWORDS: frontal osteoma, FESS, facial reconstruction.

NEURONAVIGATION. CRITICAL ANALYSIS OF THE METHOD

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The success of neuronavigation consists in intraoperative orientation and monitoring of tumour ablation or other surgical procedures on tissue lesions. It helps in managing the surgical approach for the lesion and localizes the neurovascular structures of proximity. This computer-aided surgical navigation provides safety and increases the surgeon's confidence.

MATERIAL AND METHODS: The aim of this study was to analyze (based on our clinical experience correlated to the experience of other clinics and surgeons) the advantages and limits of the optical and electromagnetic neuronavigation systems used in otolaryngology and skull base surgery.

The location of the intraorbital and intracranial contents are in close juxtaposition to the paranasal sinuses, which makes endoscopic sinus and skull base surgery possibly unsafe. Methods of localizing lesions like intraoperative MRI and CT, when integrated with neuronavigation improves the efficacy, safety and decreases the morbidity. The realtime depiction provides precise spacial information, anatomic landmarks and the position of surgical instruments in the field. Future possible indications of neuronavigation are discussed.

This study presents research data about types of computer aided surgery systems and their accuracy. Also, this report makes a review of different surgeon experiences using neuronavigation in skull base and paranasal sinus surgery, pterygopalatine fossa.

CONCLUSIONS: The type of computer-assisted surgical navigation system should be selected according to each case. The decision for using neuronavigation system should be taken depending on surgeon's preferences, experience, and cost effective data.

The average error ratio of the indicator (marked on the peak of the instrument) is between 1-2 mm and must be taken into account.

KEYWORDS: neuronavigation, computer aided surgery, electromagnetic neuronavigation, optic neuronavigation

EMPTY NOSE SYNDROME (ENS)

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Empty nose syndrome (ENS) is a clinical entity lacking consensual meaning, illustrating a rare nose surgery complication, particularly, of nasal conchae surgery which results in the destruction of the normal nasal tissue. In severe forms, it may become debilitating, the inability in identification and appreciation of this syndrome turns detrimental to the patient. Physiopathology remains controversial, which probably implies disorders caused by excessive nasal permeability, affecting neurosensory receptors as well as the humidification functions and conditioning of inhaled air. Neuropsychological involvement is being suspected. Symptomatology is both variable and changeable, the most evident sign outlining paradoxical nasal obstruction. The diagnosis is based on a series of symptoms which need to be collected precisely, the objective examination which highlights the permeability of nasal fossae. The management is problematic, there are implemented a complete range of simple hygiene and humidification techniques of the nasal cavity, for more severe cases surgery is provided, regardless of technique, the surgery targets partial filling of the nasal airways. Prevention is the most essential strategy along with basic conservative surgical techniques.

CONCLUSIONS: ENS may emerge as a result of surgery on nasal conchae, but can still occur on conchae with normal morphological structure.

It is not clear why do some patients develop this syndrome and others don't. In a sense, it is often associated with psychiatric disturbances and psychosomatic pathologies that indicate the role of psychosocial stress in some patients. The most striking symptom is paradoxical nasal obstruction. Patients are preoccupied by their breathing and nasal sensations, leading to inability to concentrate, chronic fatigue, irritability, anxiety, depression associated with a major impact on the patient's quality of life. Diagnosis is based on patient complaints and clinical examination. ENS measures of prevention is very important by keeping as much as possible the mucosa of the middle and inferior nasal conchae. Patient's life quality suffering from this syndrome can be improved by restoring the nasal volume.

CYSTIC LESIONS OF THE MAXILLA – CLINICAL CONSIDERATIONS AND DIFFERENTIAL DIAGNOSIS

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Cystic lesions of the maxilla are benign entities with both odontogenic and non-odontogenic origins. Maxillary cyst is a benign tumor formation category that belong to a class of heterogeneous formations endobone jaw, which has a membrane and are fluid, semi-solid or mixed (liquid / semi-gaseous). These often lead to deformities in the jaw area. Cases are specific by framing pathological rarity, etiology, pathogenesis and clinical symptoms.

Considering the large entity of cystic formations which can be found at the maxilla region, we selected two patients with cystic formations of the upper jaw, which were part of different pathological etiology categories, with special rarity occurring, evolutionary appearance and difficult to classify in terms of pathognomonic signs.

LOCAL ANESTHESIA IN NASAL SEPTOPLASTY AND RHINO (SEPTO) PLASTY

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Purpose of the study: To present the technique and the advantages of local anesthesia in nasal septoplasty and rhino (septo) plasty.

MATERIALS AND METHODS USED: A retrospective review of 939 patients who underwent septoplasty, and rhino (septo) plasty between Dec 2011 and Dec 2016 was conducted – (651 procedures of septoplasty, 185 rhinoseptoplasty and 103 of rhinoplasty) . 97,5% (916 operations) were made under local anesthesia. Most functional operations were carried out in otorhinolaryngology department of Military Hospital of Craiova and all cosmetic operations were carried out in a private clinic.

RESULTS: The 939 patients were aged 16 to 84 years old. 30.6% of them wanted also the improvement of the aesthetic aspect of the nasal pyramid. 78% from the group of patients that underwent surgical interventions only for nasal functional dysfunctions have been males, meanwhile 74% from the group of patients who wanted also nasal cosmetic corrections have been females. From the number of 836 septoplasty, about 60% have been realized for disorder of permeability of nasal fossa, 20% for different affections concomitant with nasal septum deviations (headaches, recurrent epistaxis, ear diseases, nasal polyposis, chronic dacryocystitis, chronic sinusitis and other sinus affections) and the remaining 185 cases as part of rhinoseptoplasty. Out of 288 rhino –corrections, 87% have been realized just like outpatient procedure.

CONCLUSION: Each step is very important for a good local anesthesia and patient comfort: preoperative discussion with patient, preanesthetic medication, contact anesthesia, infiltration anesthesia, great experience of doctors and nurses with this type of anesthesia. Local anesthesia allows a day surgery hospitalization and a quick recover of patients, with a great reduction of cost for healthcare systems. Local anaesthesia gives the possibility to perform surgery also in patients at risk for general anaesthesia.

LARYNGOTRACHEAL STENOSIS - WHEN AND HOW TO OPERATE

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Laryngotracheal stenosis represent a potentially life threatening pathology, that usually associates poor functional outcomes and few cases where a complete resolution can be achieved. The etiology can be extremely variable, ranging from posttraumatic patients to congenital stenosis. For all acquired stenosis, one of the most frequent and difficult to manage situations is that of patients with iatrogenic stenosis following prolonged endotracheal intubation for more than 10 days. Other causes include trauma to the larynx or prolonged infections.

The management of these patients is extremely difficult. Our therapeutic options include a tracheotomy that permits a resolution of the emergency and ensures a respiratory flow, with complex measures to follow. The interventions available nowadays include one or more endoscopic LASER interventions associated with an endolaryngeal Montgomery stent, or an open approach, with the resection of the stenosis area and end-to-end anastomosis or a laryngotracheoplasty.

MATERIALS AND METHOD: We wish to present the experience acquired so far in our department regarding complex cases of laryngotracheal stenosis, with various causes ranging from congenital, posttraumatic or iatrogenic. Both the endoscopic and open approaches were used, depending on each case's particularities.

CONCLUSIONS: The outcomes can vary greatly, depending on the etiology and the state of health of each patient. When present, risk factors such poor healing capacity, gastroesophageal reflux, diabetes or other comorbidities can associate a poor prognosis. However, in selected cases, good results can be achieved, with a satisfying air flow and decanulation. This pathology remains a difficult one, the overall recovery being a long and difficult one, but with good results in patients that are suitable for the intervention as far as the risk factors are concerned.

KEYWORDS: laryngotracheal stenosis, surgery, management.

OPTICAL BIOPSY IN THE ASSESSMENT OF DISEASE-FREE MARGINS IN THE SURGERY OF THE VOCAL FOLD

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INTRODUCTION: Nowadays studies show a growing incidence of laryngeal cancer and a decrease in the age of the patients at the moment of diagnosis. This pathology represents a challenge for therapists due to the advanced stages of the tumors when they are detected because of the limited treatment measures. Vocal cord cancer starts as a premalignant lesion (dysplasia) that later develops into cancer.

The goal of the surgical treatment of this pathology is the complete resection of the tumor. The most important principle in oncologic surgery is to have disease free margins.

During surgery, it is mandatory for the surgeon to assess the limit of resection up to healthy tissue. "Optical biopsy" is a technique the surgeon can use during the intervention to help him evaluate the free margins in the case of vocal fold cancer surgery.

MATERIALS AND METHOD: This paper aims to evaluate the use of optical biopsy in assessing the margins of resection during vocal fold cancer surgery. The use of technologies like NBI (Narrow Band Imaging), SPIES and Video Contact Endoscopy improve free margins assessment.

CONCLUSIONS: The advantage of the "optical biopsy" is that it can be done during surgery, in vivo.

Although the gold standard in the assessment of the free margins is the biopsy (direct sampling), the so-called "optical biopsies" that associate NBI, SPIES and Video Contact Endoscopy are one of the best options as preliminary assessment methods.

A correct evaluation of the resection margins is very important for the outcome of the surgery.

KEYWORDS: Optical biopsy, vocal fold cancer, NBI, SPIES

SALVAGE TOTAL LARYNGECTOMY – A CHALLENGE FOR THE HEAD & NECK SURGEON

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The VA study by the Department of Veterans Affairs Laryngeal Cancer Study Group, published in 1991, marked the debut of organ-preserving strategies in the management of laryngeal cancer.

Despite remarkable outcomes, there is a number of patients who present with local recurrences. Salvage laryngectomy remains the last hope to survive for these patients.

We performed a retrospective study on 35 patients who presented in our department with local recurrences after curative chemo-radiotherapy. All patients underwent a salvage total laryngectomy between 2006-2015. We evaluated the rate of postoperative complications (58%), the incidence of pharyngocutaneous fistula (42%), the management of these complications, the controversies in the management of the N0 neck, the survival rates. We reviewed also the pathologic reports, to assess the resection margins and the lymph node metastasis in clinical N0 neck (15%).

TRANSORAL LASER MICROSURGERY (TLM) USAGE FOR ORGAN PRESERVATION IN A T4A LARYNGEAL CANCER- A CASE REPORT

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INTRODUCTION: Management of moderately advanced local laryngeal cancers (t4a) represents a challenging task when having in mind organ preservation surgery with no recurrence and good survival rates.

The aim of this presentation is to emphasize the potential and the indications of TLM in selected patients by presenting a case of a T4a N2M0 moderately differentiated squamous cell carcinoma (SCC) of the larynx.

MATERIALS AND METHODS: Aiming to preserve the larynx in malignant laryngeal tumors determined ENT surgeons to envisage alternative surgical techniques for locally advanced cases while respecting oncological principles and increasing the postoperative quality of life in patients who would have undergone total laryngectomy.

The authors would like to present a step by step treatment algorithm used in a very well selected T4a case where the tumor growing from the right vocal cord infiltrated to the right ventricle, anterior commissure, the right subglottic region with hypomobility of the right Hemi larynx. CT and MRI scans showed extension to the right lamina of the thyroid cartilage – T4a and the presence of multiple bilateral cervical lymph nodes – N2 (the largest node had 27mm).

In this very well selected case of locally advanced laryngeal cancer we used TLM, at 6 to 8 Watts, doing a right hemi-laryngectomy extended to the anterior commissure and subtotal resection of the right arytenoid cartilage.

RESULTS AND DISCUSSIONS: Wide tumoral resection using CO2 laser surgery combined with radiotherapy of the larynx and the neck lymph nodes with desensitization chemotherapy, an aggressive follow up and a very compliant patient led to survival with no recurrence at 5 years, organ preservation and increased quality of life. Additionally speech intelligibility after TLM seems to be in favour of this method when compared to total laryngectomy even with voice prosthesis

CONCLUSION: The results achieved with this particular case corroborated with some data from the literature led to the conclusion that CO2 transoral laser microsurgery along with tailored oncological treatment could be considered an option in highly selected T4a cases instead of the classical approach (total laryngectomy) with good survival and organ preservation without compromising oncological results.

KEYWORDS: T4a, laryngeal cancer, Transoral laser microsurgery

LASER ASSISTED CORDECTOMY – WHEN AND HOW

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When confronting with an early glottic carcinoma, surgeons together with the patient must choose the most appropriate treatment in order to obtain complete healing. The main treatment methods are external approach, LASER assisted cordectomy and/or radio/ chemotherapy.

Remacle and his collaborators created a classification of cordectomies: type I- subepithelial cordectomy; Type II - subligamental cordectomy; Type III - transmuscular cordectomy; Type IV - total cordectomy; Type Va - extended cordectomy, which encompasses the contralateral vocal fold and the anterior commissure; type Vb - extended cordectomy, which includes the arytenoid; Type Vc - extended cordectomy, which encompasses the subglottis; and Type Vd extended cordectomy, which includes the ventricle.

Current paper presents the indications, contraindications, the operatory technique of LASER assisted cordectomy and its limits.

KEYWORDS: cordectomy, LASER assisted, vocal folds

VOICE RESTORATION AFTER TOTAL LARYNGECTOMY - WHICH TECHNIQUE AND WHEN DO WE USE IT?

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Loss of voice is the consequence of laryngectomy most disturbing for the patient. Usually the patient undergoes total laryngectomy with the prospect of subsequent voice rehabilitation.

The multitude of different technical and surgical approaches was developed in order to address to the different problems associated with rehabilitation of speech and swallowing after laryngectomy.

Four different categories of voice rehabilitation can be applied: external (electrical) devices, esophageal speech, alaryngeal speech and tracheo-esophageal shunts either with or without fistula voice prosthesis. During the past three decades, the voice prosthesis is credited the highest success rate. The main advantage is that is easy in insertion and replacement, without serious complications. Nonetheless, some complications might be challenging and might require specific management such as personalized oncological treatment with appropriate nutritional status and rigorous personal hygiene.

VOICE REHABILITATION AFTER TOTAL LARYNGECTOMY

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INTRODUCTION: Treatment of laryngeal cancers, may include surgery, radiotherapy, chemotherapy, or a combination of the three. Total laryngectomy has been the standard surgical treatment. The aim of total laryngectomy is to eliminate, with oncologic free limits, the malignant laryngeal tumor, scarifying the larynx. Some of the most basic functions, including breathing, swallowing, and communication are affected. One of the main concerns of the patient who undergoes surgical intervention for laryngeal cancer is the loose of voice. This is most important for people who are still in the work field.

In general, patients who undergo total laryngectomy experience a decreased quality of life compared to healthy individuals or patients after partial laryngectomy. While the alteration of speech is not the only contributor to reduced quality of life, it is generally considered a major factor.

MATERIALS AND METHOD: We analyzed the of voice restoration methods when the larynx must be sacrificed by total laryngectomy. The patient can attempt to learn esophageal speech. If this fails there are different tracheoesophageal prosthetics developed in the late 35 years, since the first device was described in 1980 by Blom and Singer as a method of postlaryngectomy voice rehabilitation. A vibrating sound source for speech can also be acquired by the use of a manual electric vibrator.

CONCLUSION: Although speech with tracheoesophageal prosthetics is not yet comparable with laryngeal speech in terms of quality of sounds, the voice obtained with or without this kind of devices significantly improved the quality of life and reduced the voice handicap after total laryngectomy.

KEYWORDS: total laryngectomy, voice rehabilitation, tracheoesophageal prosthesis.

LASER ASSISTED POSTERIOR CORDOTOMY – UNI – OR BILATERAL IN GERHARDT SYNDROME?

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Posterior cordotomy and its variants are minimally invasive but definitive treatment procedures for Gerhardt syndrome = bilateral paralysis of vocal fold (VF) abductors, with the purpose of restoring glottic space while preserving phonatory function and swallowing safety. Although many alternatives including open procedures are available for the treatment of bilateral VF paralysis in a midline position, the literature review shows CO₂ LASER-assisted partial excision of VF and/or arytenoids is the preferred procedure. We present our case series of 25 posterior cordectomies with varied etiology (thyroid surgery, neurological disease, idiopathic), using either CO₂ or diode LASER, performed either unilateral or bilateral. We report a total success rate of 88% with no subjective complications regarding speech and swallowing. The estimated intraoperative glottic space had the greatest impact on success while the decision to perform the procedure on one VF or both VF simultaneously didn't independently influence the outcome in terms of glottic patency, speech or swallowing. We conclude that posterior cordectomy is an effective and safe surgical treatment option for bilateral VF paralysis in a midline position.

KEYWORDS: Gerhardt syndrome, vocal fold paralysis, posterior cordotomy, posterior cordectomy

OLFACTOMETRIC ASSESSMENT – STATE-OF-THE-ART IN ROMANIA

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INTRODUCTION: Although smell has an important role in everyday life by mediating interpersonal relationships, detecting imminent danger (e.g.: gas leakage, smoke) and helping to identify altered foods, methods of assessing olfactory function can not yet be structured in an internationally valid protocol. Numerous methods of scent investigation have been described in the literature, but each of them has limited clinical applicability.

MATERIALS AND METHODS: In the ENT Clinic of the "Sfanta Maria" Clinical Hospital, a prospective clinical trial was launched starting in November 2015, in which all patients with odor disorders meeting the inclusion criteria were introduced. These are subjectively assessed by detecting the odor threshold level using the TO8 olfactometer (n-butanol dynamic olfactometry) and objectively, by obtaining evoked potentials after the electrical stimulation of the olfactory mucosa with Natus Nicolet's equipment. The purpose of this study is to implement a protocol for the diagnosis and treatment of olfactory disorders.

RESULTS: The assessment of olfactory function is a complex process, not entirely known, based on subjective and objective methods, especially in cases with forensic involvement when simulant patients must be identified. There are difficulties and limits in obtaining the expected results, because of the scarce information about olfactory electrical potentials recording, because patients are hard co-workers, collaboration with a neurophysiologist is needed to get a correct interpretation of the results, as well as an imaging physician. Last but not least, we also face financial limitations for patients, because imaging exams are not entirely settled.

KEYWORDS: hyposmia, anosmia, n-butanol, olfactometry

DIFFICULTIES IN THE REABILITATION OF PATIENTS WITH VERTIGO USING DYNAMIC POSTUROGRAPHY

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INTRODUCTION: Computerized posturography is a non-invasive method of quantification of balance function, using a set of tests designed to evaluate balance-maintaining capability using vestibular, visual and somestezic inputs that are integrated at the cortical level. The posturography platform can also be used to rehabilitate patients with vestibular disorders through a customized exercise program designed to harness the compensation function of the systems involved in maintaining balance.

OBJECTIVES: establishing the importance of vestibular rehabilitation on the computerized posturography platform of patients with central and peripheral vestibular diseases.

METHODS: We evaluated 30 patients with central vestibular diseases and 30 patients with peripheral vestibular diseases before and after performing vestibular rehabilitation exercises on the computer dynamics posterography platform analyzing parameters such as the statokinesigrame surface, anteroposterior and mediolateral deviation and reference game time. Vestibular rehabilitation consisted in 10 sessions of exercises on the posturographic platform and we compared the results in both groups.

RESULTS: in both groups we observed an improvement of the parameters, with decreased surface of the statokinesigrame, a lower anteroposterior and mediolateral deviation and a better time in performing the reference game, but significant improvements have been noted in the group of patients with peripheral vestibular diseases ($p < 0.05$).

CONCLUSIONS: Vestibular rehabilitation using the posturography is an important part in treatment of patients with vestibular disorders, especially in patients with peripheral disorders, compensation for central vertigo being more difficult to achieve.

KEYWORDS: vestibular rehabilitation, posturographic platform.

STERIL-STRIP PATCHING IN TYMPANOPLASTY - LITERATURE REVIEW AND CASE REPORT

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INTRODUCTION: Tympanic membrane perforation is most commonly a result of infection, trauma, or iatrogenic. Consequences of non-closure the tympanic perforation may include hearing loss, chronic otorrhea and cholesteatoma formation. Myringoplasty is the surgical procedure to repair tympanic membrane perforations and thereby improving hearing, providing a dry ear and reducing susceptibility to infections. Steril strips are made of a porous, non-woven backing coated with a pressure-sensitive, hypoallergenic adhesive and reinforced with polyester filaments for added strength. Advantages of using them are that they are inexpensive, have decreased the risk of infection and are easy to apply.

METHODS: This article presents a brief literature review on this topic and illustrates the general data with a case report. A 40-year-old man was referred to our clinic with right hearing loss after diving 15 days previous examination. The otoendoscopy examination revealed a central perfora-

tion with a perforated area smaller than 35 % of the whole tympanic membrane, no pathological fluids were identified. A piece of Steril strip was cropped to a bit a little larger than the perforation width and was fixed to the tympanic membrane.

RESULTS: Myringoplasty is the surgical procedure to repair tympanic membrane perforations and thereby improving hearing, providing a dry ear and reducing susceptibility to infections. The procedure using Steril strip patching was performed with patient under local anesthesia into the ear canal using endoscopic instrumentation.

CONCLUSIONS: Even so, there are many different techniques and graft materials used, the literature does not ensure that a particular method is superior to the other. In the literature, success rate of myringoplasties with temporalis fascia, vein graft, cartilage and perichondrium touches 80–90 %. Using Steril strips patching guide to shortening healing time and also prevent the need to repeat the procedure.

KEYWORDS: tympanic perforations, myringoplasty, Steril strip

STUDY REGARDING THE QOL OF PATIENTS WITH CHRONIC SUPPURATIVE OTITIS MEDIA

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INTRODUCTION: This paper highlights the aspects of quality of life in patients with otitis media and how they change one year after surgical treatment.

METHODS: A prospective study has been conducted over a period between June 2014 and December 2016 on a total of 201 patients at the ENT Clinic, University of Medicine and Pharmacy Iuliu Hatieganu Cluj-Napoca, in which the questionnaire COMQ-12 (Chronic Otitis Media Questionnaire-12) was used for the evaluation of the subjects.

RESULTS: With a minimum of 5 and a maximum of 42, the average score of the COMQ-12 questionnaire was 21 and the median 21.41. 188 patients were able to calculate pre- and postoperative ABG. Prior to treatment, the ABG average was 41.02 and postoperative it decreased to 19.76. The standard deviation before surgery was 13.21 and postoperative was 9.09. Following the multivariate analysis, two mathematical formulas had been developed to measure the risk of negative progression of hearing at home or in society. Thus, for home hearing, an age-based formula and pre-operative ABG value were revealed. A score (n) greater than 8.74 suggested the possibility of unfavorable hearing at home. Similarly, the mathematical formula corresponding to hearing in society is influenced by the presence of perforation and the preoperative ABG value. A value of score (n) greater than -0.79 is associated with an unfavorable evolution of hearing in society.

CONCLUSIONS: Otorrhea, present in most patients, is the symptom that most of them remit from the treatment. In terms of hearing, prognosis is influenced by preoperative ABG, age and perforation. With a high rate of improvement, otorrhea is the symptom that can be best quantified but at the same time it may not be felt by the individual. The patients who experienced a decrease in tinnitus had a significant increase in quality of life.

RARE CASE OF LABYRINTHITIS IN PRIMARY INFECTION WITH CYTOMEGALOVIRUS IN HEALTHY ADULT

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INTRODUCTION: Although it can not be histopathologically demonstrated, cytomegalovirus infection rarely causes vestibular dysfunction such as sudden hearing loss or acute labyrinthitis. In such cases only serology can determine the exposure of the host to the virus, therefore betraying the diagnosis.

MATERIALS AND METHODS: The authors present the case of a 32-year-old healthy female patient, with no background of viral infections during pregnancy testing from 3 years behind, that accuses an episode of sudden and aggravated unilateral hearing loss accompanied by tinnitus, dizziness, and headache. The symptoms were preceded by the appearance of a rash on the face and neck.

Comprehensive audiology and vestibular testing such as pure tone audiometry, acoustic immittance test, video oculography with nystagmus assessment, video head impulse testing (vHIT) were performed. Laboratory investigations performed were complete blood count (CBC), antibody titers

for both HIV and CMV, as well as inner ear MRI with contrast enhancement.

RESULTS: Profound sensorineural hearing loss on the left ear with irritative spontaneous nystagmus (rapid involuntary movement of the eye to the left ear), as well as truncular deviation to the right side were revealed. Imaging does not reveal the presence of a tumoral mass involving vestibulocochlear nerve and no difference of contrast enhancement between labyrinths was noticed. White blood cells count highlights lymphocytopenia, with relative granulocytosis and a normal number of leukocytes.

The patient was HIV-seronegative, with no detectable CMV-specific Ig M antibodies but with a high titer of CMV-specific Ig G antibodies.

Under steroid and antiviral treatment, the patient's outcome was favorable. As for hearing recovery, after 2 weeks of treatment, the hearing was partially recovered, with a moderate degree of loss. One month after the onset, control audiogram showed auditory thresholds within normal range except those at 4 and 8 kHz.

DISCUSSIONS: The patient will be audiological, vestibular and virologically monitored as the hearing loss may not remain stable and she can develop other vestibular pathologies such as benign paroxysmal positional vertigo (BPPV) or Meniere's disease. It is necessary to follow up the dynamics of the CMV-specific IgG and IgM antibodies in the possibility of a new pregnancy.

CONCLUSIONS: Primary infection with CMV in healthy adults with clinical expression of acute labyrinthitis is extremely rare. In most cases, primary infection remains silent and severe complications of CMV infection such as labyrinthitis followed sometimes by encephalitis occur mostly in the immunocompromise persons with AIDS or transplanted patients.

CLINICAL CONSIDERATIONS UPON A ETHMOIDO - ORBITAL NON-HODGKIN LYMPHOMA

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INTRODUCTION: Ethmoidal lymphoma represents a rare clinical entity encountered in the ENT field.

MATERIAL AND METHODS: The authors present a case which according to clinic (orbital cellulitis) and imagistic (CT-scan) appearance is admitted in the clinic with the diagnostic of acute rhinosinusitis.

Treatment included endoscopic surgical approach with maxillary antrostomy and ethmoidectomy completed by left orbital decompression, but no drainage of purulent content from the orbital level was noticed. Despite surgical and postoperative treatment, the orbital cellulitis accentuated and required and secondary approach with external orbital decompression and biopsy was conducted from the orbital capsule as well as fragments from anterior ethmoid mucosa. The histopathology examination revealed the diagnostic of orbital diffuse non-Hodgkin lymphoma. The patient is directed to a hematology department for the immunohistochemistry test required for lymphoma staging and treatment.

CONCLUSION: Positive diagnostic was difficult to establish in this case, due to unspecific symptoms which mimed an infectious sinonasal disease. Therefor is absolutely necessary to biopsy, even unsuspected tissue fragments.

KEYWORDS: non-Hodgkin lymphoma, multimodal treatment, orbital decompression

COMPLICATIONS OF RECURRENT RESPIRATORY PAPPILLOMATOSIS ACCORDING VIRAL GENOTYPING AND ANTIVIRAL TREATMENT

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BACKGROUND: Recurrent respiratory papillomatosis is a disease caused by HPV characterized by the development of papillomas in the aerodigestive tract. About 95% of the papillomas have laryngeal localization involving HPV genotypes 6 and 11 and the rest are distributed in the nasopharynx, oropharynx, lungs, bronchi and trachea. Laryngeal papillomatosis is classified in two types: JORRP and AORRP.

AIMS: HPV genotyping of the study group. Follow-up: diagnostic procedures and therapy.

METHODS: Prospective clinical study on 41 patients with laryngeal papillomatosis, (JORRP (41.5%) and AORRP (58.5%)). **INCLUSION CRITERIA WERE:** children and adult patients, positive diagnosis of RRP, patients with a history and treatment records, patients who have not performed viral analysis for RRP. Exclusion criteria were: immunodeficient patients, pregnancy and lactation, associated diseases with contraindication to treatment. The principle of genotyping kit is based on the amplification of a consensus sequence of the viral genome L1 gene.

RESULTS: Viral genotyping was performed in all patients and identified genotype 6 (68.3%); genotype 11 (24.45%); genotype 16 (2.4%); and HPV negative (4.9%). 61% of the patients received Cidofovir and 39% Isoprinosine. Recurrence and extension of papillomatosis occurred in 92.7% of the patients and malignancy has occurred in 24.46% of cases.

CONCLUSIONS: Identification of genotype helps us to classify "high-risk" disease on progression to malignancy and to choose the optimal therapy.

CORTICOSTEROIDS AND NEUROTROPHIC MEDICATION EFFICIENCY IN PATIENTS WITH BILATERAL VOCAL FOLD PALSY AND TRACHEOSTOMY

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PURPOSE: tracking functional recovery of recurrent laryngeal nerve and ensuring respiratory airway through emergency tracheotomy in post-thyroidectomy patients.

OBJECTIVES: the importance of diagnosis and correctly conducted treatment with group B vitamins and general corticoid in patients tracheotomized for bilateral laryngeal paralysis occurred immediately post-thyroidectomy.

MATERIAL AND METHOD: during the course of 5 years, 15 patients who underwent surgery for thyroid goiter, with postoperative bilateral laryngeal paralysis, have been treated through tracheotomy. Corticotherapy and trophic nerve treatment with group B vitamins, have been administered at the same time as the surgical treatment for 10 days, each month.

RESULTS AND DISCUSSIONS: The 15 patients operated in 5 years were tracheotomized on the same day, a few hours after thyroidectomy and were hospitalized for 7 days. Periodic, monthly control revealed 2 months in 75% of the patients returning the functionality of the right vocal cord, and both vocal cords at 3 months in 25% of the patients, which is why the decanulation was performed.

CONCLUSIONS: The importance of corticoid and nerve trophic treatment for 10 days on a month well-administered led to the functional recovery of recurrent nerve and sensitivity of the recurrent left nerve.

RHINO-ORBITAL MUCORMYCOSIS

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Mucormycosis is an opportunistic fulminant fungal infection, which has the ability to cause significant morbidity and frequently mortality in the susceptible patient. Common predisposing factors include diabetes mellitus and immunosuppression.

The infection begins in the nose and paranasal sinuses due to inhalation of fungal spores. The fungus invades the arteries leading to thrombosis that subsequently causes necrosis of the tissue. The infection can spread to orbital and intracranial structures either by direct invasion or through the blood vessels. Because of its rapid progression and high mortality, early recognition and aggressive treatment offer the only chance to increase the survival rate. We report a case of invasive mucormycosis in a 78-year-old diabetic male, who came with complaints of swelling in left side of face, pain in left eye, left orbital swelling. An ENT examination revealed left facial swelling and proptosis. Vision in left eye was no perception of light and there was

conjunctival congestion and total ophthalmoplegia in left eye. After a CT scan, we proceed with a radical sinus surgery with orbital drainage. Histopathological report revealed Mucormycosis. Under the treatment, the patient was cured. The early and correct combined (medical and surgical) treatment saved patient's life.

ANAEROB GERMS AGRESSION IN SUPPURATIVE SINUSAL ORBITO-OCULAR AND ENDOCRANIAL COMPLICATIONS

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PURPOSE: establishing the importance of sinusal suppuration causes from an etiopathogenic point of view

OBJECTIVES: infection modalities of the facial sinuses by the root of the teeth osteitis, from the superior arch (sinusogen teeth), either slowly and progressively, or through vascular path, and establishing a medical and surgical therapeutic plan.

MATERIAL AND METHOD: patients committed with orbital cellulitis and orbital phlegmon, with signs of sinusal suppuration of dental origin – 33 cases in one year.

RESULTS AND DISCUSSIONS: suppurative orbito-ocular symptomatology manifested through superior eyelid tumefaction, chemosis, palpebral ptosis secondary to sinusal suppuration with objective and subjective cacosmia and radicular remnant.

BACTERIOLOGICAL EXAMINATION: Enterobacter sensitive to Ciprofloxacin, Meropenem.

Sinusogen radicular remnant extraction, followed by sinusal sanitation of the suppuration and orbital collection drainage under antibiotic protection, have led to cure of the disease.

CONCLUSIONS: establishing the causal diagnosis and solving the sinusal and orbital suppurations represent the main clinico-therapeutic course of action.

DIAGNOSTIC AND THERAPEUTIC METHODS FOR ESOPHAGEAL FOREIGN BODIES OF DIFFERENT SIZES

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PURPOSE: Esophageal foreign body involvement in alimentary stoppage.

OBJECTIVES: establishing esophageal status, in case of or in lack of postcaustic esophageal stenosis and trituration of aliments.

MATERIALS AND METHOD: emergency patient presentations with alimentary stoppage, 90% of which have postcaustic stenosis and 10% have a normal esophagus, but lack dentition or in case of unsupervised children who swallow foreign bodies.

RESULTS AND DISCUSSIONS: patients committed to our clinic in the last year, numbering 189, with alimentary stoppage for 24, 48, 72 hours – who underwent imagistic examination in order to view the foreign body or an esophageal perforation. Under general anesthesia, foreign body extraction has been performed endoscopically with 24 hour postoperative surveillance and for huge foreign bodies we practiced cervical oesophagotomy with 10 days surveillance.

CONCLUSIONS: foreign body extraction through esophagoscopy/ cervical oesophagotomy under general anesthesia, in order to prevent suppurative complications.

USE OF LOCOREGIONAL FLAPS IN EXTENDED ONCOLOGICAL RESECTION IN ENT SURGERY

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INTRODUCTION: due to the increased incidence of malignant cervico-facial tumor pathology and the presentation of patients at a locally advanced stage, the need for knowledge of surgical techniques in the manufacture of flaps is useful for the adequate treatment of malignant tumor pathology in advanced stages for post-ablation reconstructive time.

MATERIALS AND METHODS: Several methods of reconstruction have been described over time in cervico-facial surgery, based on certain goals (replacement of lack of substance, restoration of musculo-cutaneous plans). Consequently, the use of flaps in cervico-facial reconstructions remains the method of choice used in post-ablation major defects of cervico-facial tumor processes. Due to a simple harvesting technique, a vascularization with its own pedicle, some of these allow high rotation. The technique of harvesting these flaps has several stages: preoperative stage, harvesting, coverage and closure of the defect.

RESULTS AND CONCLUSIONS: reconstructive methods should restore both the aesthetics of the cervico-facial region and the functionality of the involved organs. The reconstruction decision will be influenced by the type, localization and locally advanced stage of tumor pathology; The depth of the defect (of the anatomical structures concerned); Associated comorbidities, oncological status (post-radiotherapy, post-chemotherapy).

Keywords: flap, cervico-facial surgery, reconstructive surgery.

IS HPV18 AND E-CADHERIN EXPRESSION USEFUL IN HEAD AND NECK SQUAMOUS CELL CARCINOMA

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INTRODUCTION: HPV is an important oropharyngeal cancer cause, but it may have a role in other head and neck cancers sub-sites? HPV positive head and neck squamous cell carcinoma (HNSCC) epithelial-mesenchymal transition role is unclear.

MATERIAL AND METHODS: We assess different sub-sites HPV18/E-cadherin expression correlations. We included 38 cases: 20 laryngeal, 3 corresponding lymph nodes; 5 oropharyngeal, 5 hypopharyngeal, 2 rhynopharyngeal, 2 pharyngolaryngeal and 1 naso-sinusal case. Immunoreactivity was positive in nuclear expression cells, accordingly: score 1 (10-30%), 2 (30-50%) and 3 (>50%).

RESULTS: HPV18 immunoexpression appeared in 18 cases (47.36%), (11 laryngeal, 4 oropharyngeal, 1 hypopharyngeal, 1 pharyngolaryngeal and 1 naso-sinusal). The score was 1 in larynx well differentiated type. The score was between 1 and 3 in larynx moderately differentiated types, and a significant correlation HPV18/E-cadherin was found ($p=0.031$). HPV18+/E-cadherin low values were noticed in larynx, oropharynx, pharyngolarynx and naso-sinusal well and moderately differentiated types. HPV18-/E-cadherin low values were present in larynx, hypo and rhyno-pharynx moderately and poorly differentiated and larynx well differentiated types. Larynx presented HPV18/E-cadherin and moderately differentiated type significant correlation.

CONCLUSION: Rhyno, hypo-pharyngeal and laryngeal presented HPV18-/E-cadherin low values association for moderately, poorly and undifferentiated types. The oropharyngeal sub-sites were associated with E-cadherin maximum values, independently of HPV18 status.

OPEN APPROACH IN SINONASAL TUMORS- INDICATIONS AND LIMITS

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INTRODUCTION: The external surgery approach in rhinosinusal tumor pathology represent the traditional method of resection this type of tumors. In recent years, it has been used to combine or replace it with the endoscopic approach. However, the external approach remains a safe and effective method both for large and extensive locoregional tumors that can not be approached endoscopically.

MATERIAL AND METHODS: The external approach is indicated for patients who have enlarged tumors at the anterior wall of the maxillary sinus, frontal sinus walls, tumors that invade periorbital fat, nasal-lacrimal duct, dura mater from the middle cerebral fossa and subcutaneous tissue adjacent to the affected rhinosinusal region. It is indicated to patients who are in advanced local stages but also in benign tumors interested in the frontal bone. The "en bloc" tumor resection of large rhinosinusal tumors can be achieved by lateral rhinotomy, which can be combined with frontal craniotomy (in this case the method is called anterior cranio-facial resection). We are using endoscopic techniques both for resection and control at 0°, 30° and 70° and sometimes supplemented with "optical" biopsies (SPIES and / or NBI).

RESULTS AND CONCLUSIONS: Even though, over the last period of time, the external approach has been increasingly replaced by the endoscopic one because of the great advantages that it has. It should be borne in mind that in some situations (large tumor pathology, difficult to approach endoscopically) the external approach is the method of choice in rhinosinusal tumor pathology.

KEYWORDS: sinonasal tumors, open approaches, anterior skull base.

FRONTAL SINUS OSTEOMAS MANAGEMENT IN ENT DEPARTMENT TIMISORA

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INTRODUCTION: Craniofacial osteomas are benign tumors of the skull-base, often involving the paranasal sinuses. The frontal sinus is the most common site of involvement. The growth rate is very slow, and it may take many years for osteomas to become clinically apparent.

MATERIAL AND METHODS: Between the years 2003- June 2017, in the ENT Department Timisoara, 12 patients were treated for frontal sinus osteoma, 4 females and 8 males. Management of uncomplicated sinus osteomas is controversial, since surgery involves serious potential risks. In ENT Department Timisoara we used external approach in each case.

RESULTS: All 12 patients underwent surgery, the postoperative results were very good.

CONCLUSIONS: Frontal sinus osteomas, skull base benign tumors, are very rare and the treatment is surgical by an external approach.

KEYWORDS: Frontal sinus, Osteomas, Treatment.

CORRELATION BETWEEN TONGUE BASE ULTRASOUND AND CEPHALOMETRY IN THE DIAGNOSIS OF OBSTRUCTIVE SLEEP APNEA SYNDROME

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INTRODUCTION: Obstructive sleep apnea syndrome (OSAS) is the most frequent sleep pathology among adults. The purpose of this study is to verify if there is a correlation between the cephalometric measurements and the ultrasound (US) of the tongue base in OSAS diagnosing.

METHODS: The study included 50 patients, who were examined at the Galenus Medical Center. All patients underwent general clinical and ear, nose and throat examination, polysomnography, cephalometric analysis of the craniofacial mass and tongue base ultrasound. The data obtained was statistically evaluated.

RESULTS: After analyzing the polysomnography results, patients were divided into groups according to the Apnoea-Hypopnoea Index (AHI). Cephalometric data correlated with OSAS severity and tongue base ultrasonography data revealed a close correlation between the obtained measurements. The size of the tongue base influences the severity of OSAS.

CONCLUSIONS: Ultrasound is a non-invasive, cheap, affordable, non-irradiating method; for this very reason, for a screening assessment regarding OSAS diagnosis we can recommend the tongue base US as a complementary method to polysomnography in order to highlight the level of obstruction.

KEYWORDS: obstructive sleep apnea syndrome, ultrasound

MANAGEMENT OF INVERTED PAPILLOMA

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INTRODUCTION: Inverted Papilloma is known to be the second most frequent benign tumor of the sinonasal tract after osteoma. The tumor usually appears in the fifth or sixth decade and is found more often among men than women. Frequently, Inverted Papilloma arises from the lateral nasal wall in the fontanelle area or the maxillary sinus and rarely from the frontal or sphenoid sinuses. It can be challenging to find firstly where the tumor emerged due to the frequent extension to multiple sinuses. The most common symptom is represented by unilateral nasal obstruction with water-like rhinorrhea. Endoscopic examination usually presents a polypoid tumor in the medium meatus, and the histopathological exam is the diagnostic key.

AIM AND METHODS: The aim of this paper is to present the management of inverted papillomas with cases reported in our clinic. We performed both endoscopic and open surgical approaches on inverted papillomas depending on their extension.

RESULTS AND CONCLUSION: Inverted Papilloma is a tumor that can be diagnosed more than once at one patient, therefore to reduce the risk of recurrence it is recommended to drill the insertion area of the tumor. Due to its extension, we can use minimally invasive techniques such as endoscopic approach or open surgery - midfacial degloving. An important risk is that this benign tumor can turn malignant and in such cases an oncological examination is recommended after surgery.

KEYWORDS: Inverted papilloma, sinonasal tumor

TYMPANOGENIC MYRINGITIS IN CHILDHOOD - A PREDICTIVE FACTOR FOR GOOD EVOLUTION OF ACUTE OTITIS MEDIA

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BACKGROUND: Tympanogenic myringitis is a particular onset of acute otitis media (AOM) and might be a predictive factor of good outcome. Our objective was to assess and describe better the cases of AOM with a serous bulla or bulging of the tympanum / tympanogenic myringitis in terms of diagnostic, mechanism of installation, treatment and outcome particularities.

MATERIAL AND METHODS: Retrospective study on 28 selected pediatric patients presented in ENT department for acute ear pain, serous bulla /

bulging of the tympanum and acute nasal obstruction. Age range 1y1m - 11years. ENT Specialist examination was in the first 24h from onset of ear pain. **RESULTS:** Selected patients were split into two lots of study depending on their age – small children (aged under 48 months) – 25% patients and older children (above 48 months) - 75%. 72% patients presented purulent nasal discharge; majority did not complain of nasal obstruction other than acute episodes.

In smaller children diagnosed with bullous / tympanogenic AOM: bilateral middle ear disease was more common; the bulla was found mostly on the more pneumatized mastoid, this ear being the last affected; usually a more severe disease was present on opposite ear.

In older children we found exactly the opposite: unilateral middle ear disease was more common; bullous / tympanogenic AOM was found on the lower (but also well) developed mastoid, which was the first or only ear affected; usually no or less severe disease was present on opposite ear.

Majority of patients were diagnosed with small or medium sized adenoids rather than large, indicating the impact of acute impairment of Eustachian tube on a middle ear with a rather good than small pneumatization of the mastoid. A rapid decrease of pressure in the middle ear followed by an acute accumulation of liquid may cause the tympanum to collapse or “expand” in the more elastic regions, thus forming a bulla.

CONCLUSIONS: Bullous or tympanogenic myringitis in children is a particular onset of AOM having the primary causes an acute, sudden decrease of pressure in a middle ear with a well pneumatization of mastoid air cells due to an acute nasal obstruction on a previously relatively healthy nose. It is related to the mastoid air cell system pneumatization, patient's age, ability to blow the nose and severity of acute impairment of Eustachian tube. On the opposite ear we expect to find a more severe ear disease in smaller children and a less severe disease in older children.

TYMPANOGENIC MYRINGITIS MAY BE CONSIDERED: a predictive factor of good evolution of AOM, an indicator of faster remission, an indicator of lower complications and a possible recommendation against performing adenoidectomy.

KEYWORDS: tympanogenic myringitis, acute otitis media, mastoid pneumatization

OUTCOMES OF DCR WITHOUT STENTING – A CRITICAL REVIEW

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BACKGROUND: Dacryocystorhinostomy (DCR) is considered to be the standard treatment due to chronic nasolacrimal duct obstruction. External DCR was first as described long back by Toti, but today it is widely accepted that the endoscopic DCR it is the most advantageous treatment for chronic dacryocystitis, which can be performed in a different ways, including the placement of a silicone stent or not.

MATERIAL AND METHODS: This study was accomplished to evaluate the effectiveness and the result of endonasal endoscopic DCR without stenting. This is a retrospective clinical study obtained in the Department of ENT of Sfanta Maria Hospital from January 2014 to June 2017, which includes 20 patients treated for chronic epiphora. These patients underwent endoscopic DCR without stenting. We followed-up our patients at 2 weeks and 1, 3, 6 months, assessing the symptoms of the lacrimal apparatus, especially the epiphora.

The mean age of patients was between 25 and 86. All patients underwent a complete intranasal examination by an ENT specialist and detailed ophthalmic examination by ophthalmologist along with syringing of nasolacrimal passage or a CT scan (if it was needed for the correct diagnosis).

RESULTS: After surgery, epiphora disappeared at all our patients, but 5 of them had recurrence, and epiphora reappears after 8 to 12 months. The rate of surgical success was in 80% of the cases, and was defined as anatomical patency and symptomatic relief at the end of the follow up period.

DISCUSSIONS: It was established that high success rates could be achieved by endoscopic DCR in case of nasolacrimal duct obstruction, and the endoscopic surgery can minimize the complications and discomfort due to external DCR or the cost of stenting.

KEYWORDS: Endoscopic DCR surgery, chronic dacryocystitis, epiphora.

LARYNGEAL EMG – ERRORS AND PITFALS

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BACKGROUND: This method of investigation has proven to be a valuable tool regarding voice disorder management, contributing especially to the diagnosis, prognosis and treatment of patients with neurolaryngological disorders. The purpose was to describe our experience with laryngeal electromyography (LEMG) and clinical usefulness to assess inferior and superior motor neuron integrity by recording action potentials generated by muscle fibers of the larynx in the new field known as neurolaryngology.

METHODS: A prospective study is performed on a group of 20 patients diagnosed with vocal fold immobility from October 2015- to July 2017 in ENT Department of „Sfanta Maria” Hospital – Bucharest. Simultaneous bilateral recordings of the thyroarytenoid, cricothyroid and posterior cricoarytenoid muscles were analyzed after transligamental electrode insertion. At all patients were measured the following electrophysiological parameters: 1) insertion activity; 2) spontaneous activity; 3) recruitment; 4) morphology of waveform: amplitude of the motor unit action potential (MUAP), MUAP duration and MUAP shape.

RESULTS: In the study, it was observed that 4 patients were found to have errors in electromyographic diagnosis. The diagnosis errors in LEMG were determined by the following factors: 1) the patient's capability to collaborate and actively participate in this procedure; 2) incorrect placement of the needle electrode and especially in patients with a tracheotomy, 3) in two patients was difficult to be identified fibrillations, positive sharp wave (PSW) and polyphasic potentials by neurophysiologist because due to heterogeneity levels muscular activity regeneration.

CONCLUSION: Clinical application of LEMG is currently limited due to the fact that there are subjective elements in technique and in the interpretation of the degree of recruitment. Interpretation of clinical electrophysiology is a fundamental part in neurology training, but not in otorhinolaryngology which explains the low number of neurophysiologists involved in laryngeal pathology.

KEYWORDS: Electromyography, Neurolaryngology, Larynx

A RARE CASE OF LARYNGEAL KAPOSÍ'S SARCOMA

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This paper presents a case report of an HIV-negative, supraglottic Kaposi's sarcoma patient. The 66-year-old female patient was diagnosed with Kaposi's sarcoma two years ago. The immunohistochemical exam revealed a Kaposi's sarcoma HHV8 positive. The treatment was 7 PCT with Vincristin and Bleomycin, and immunotherapy.

The patient admitted in our ENT Clinic with dyspnea, complaints of hoarseness, difficulty in swallowing, and a stinging sensation in his throat for approximately two months. The endoscopic larynx examination revealed a lesion which had completely infiltrated the left false vocal cord, was vegetating, pink and purple in color, multilobular, fragile, and shaped like a bunch of grapes, and partially blocked the airway passage, causing dyspnea.

On this case, a surgery decision was made. Microlaryngoscopy showed that the mass was limited in the supraglottic area, had invaded the entire left false vocal cord. It should be remembered that although rare, Kaposi's sarcoma may be encountered in larynx malignancy cases.

Disease-free survival may be achieved through local excision and postoperative chemoradiotherapy.

COBLATION FOR THE TREATMENT OF CHRONIC NASAL OBSTRUCTION

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PURPOSE OF STUDY: To assess the safety and efficiency of Coblation for treatment of chronic nasal obstruction caused by inferior turbinate hypertrophy.

MATERIALS AND METHODS: A prospective non-randomized clinical study; 124 patients (2015-2016) were enrolled in the study with chronic nasal obstruction refractory to medical treatment who underwent Coblation turbinate surgery in local/general anesthesia. The preoperative, intraoperative and postoperative examination of patients was done endoscopic. The post-operative examination was done 1-st day, 7 day, 1 month, 3 month. The follow-up was ranged from 6-24 month. We used an analogical visual scale (VAS) to monitor: the nasal obstruction, rhinorrhea, the pain and the patient satisfaction.

RESULTS: None of the patients had major complications; 1 patient present bleeding after 1 week of the intervention; no post-operative pain or other complications were reported (infection, adhesion or allergic reaction). The VAS score of subjective complaints (nasal obstruction and rhinorrhea) decrease postoperative. The score of satisfaction increase and most of the patients would consider to repeat the procedure if necessary. No patients need it after one year a second intervention.

CONCLUSION: The Coblation of the inferior turbinates is safe and effective tool for treating of chronic nasal obstruction. The intervention produce a minimal altering of the nasal mucosa and caused less discomfort for patient and it can be done even in local anesthesia.

KEYNOTES: inferior turbinates, coblation, coblator, nasal obstruction

SIGNIFICANCE OF EOSINOPHILIA AND MAST CELLS IN RHINITIS

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BACKGROUND: The diagnosis of rhinitis is a multi-factorial process. Evaluation of nasal epithelial samples is a part of clinical practice. Throughout the course of allergic and non-allergic inflammation, the functional interface between mast cells and eosinophils, represents a very important functional structure. Allergic and non-allergic rhinitis, rhinosinusitis (with/without nasal polyps) and other associated diseases (i.e. rhinosinusitis, asthma, sleep disorders, hearing impairment) severely affect the quality of life in affected patients, and represent a challenge for the physician, from establishing the diagnosis to the therapeutic protocols.

OBJECTIVE: The number of mast cells and eosinophils are both important and are interpreted as an additional confirmation of nasal allergy. The present study was performed to determine the importance of the mast cells and eosinophilia in nasal secretion and biopsies in patients of allergic and non-allergic rhinitis and nasal polyps.

MATERIAL AND METHODS: 62 patients suffering from allergic and non-allergic rhinitis, diagnosed on the basis of history, clinical examination and skin-prick tests, were selected for the study. Cytological sampling consisted in harvesting superficial nasal mucosa cells, which was performed by swabbing (in pediatric patients) or scraping of the nasal mucosa corresponding to the medial portion of the inferior turbinate. This represents a quicker method with less inconvenience for the patient and it provides an abundant quantity and good quality cell samples. We also harvested a portion of the nasal mucosa at this level and in patients, with associated nasal polyps; we harvested fragments of the polyps intraoperatively. All samples were subject to immunohistochemical analysis.

CONCLUSION: Microscopically, this pathology is characterized by the presence of both mast cells and eosinophils, in varying proportions and a notable degranulation. Mast cells and eosinophils reside in the late and chronic phases of the inflammatory process, which enables the close proximity and tight interactions between the two cell types. The interactions between these two cellular types are possibly involved in modulating the severity and/or duration of the allergic response.

KEYWORDS: multidisciplinary, rhinitis, nasal smear

FRONTAL SINUS MUCOCELE MANAGEMENT

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OBJECTIVES: The aim is to evaluate the indications, advantages, limits of applied surgical techniques, endoscopic sinus surgery (ESS) and open surgical procedures. Mucocele is a benign cystic expansion produced if the ostium of paranasal sinuses is blocked in chronic inflammation. It is filled with sterile mucus contents, locally destructive due to gradually compression and erosion of local bone walls.

METHODS: We treated 7 patients, 4 males and 3 females aged 18 - 54 years, main age 28,4 years for frontal sinus mucocele. In 2 cases ESS was performed. External surgical procedure Ogston – Luc (OL) was applied in the rest of 5 cases.

RESULTS: The most important factors affecting the choice of surgical approaches are the exactly localization, extension of disease and the preference of surgeon.

CONCLUSIONS: The endoscopic sinus surgery procedure is the best option in treating uncomplicated mucoceles with the best results and significant advantages, but the external approach remains a useful option.

POSTERIOR EPISTAXIS AND HYPERTENSION: COINCIDENCE?

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INTRODUCTION: Epistaxis is one of the most common ENT emergency, while posterior epistaxis represents the severest one. The relationship between epistaxis and hypertension still represents a controversy.

METHODS: This study was performed in ENT Department Timisoara, during a period of 3 years (2013-2015). A total 244 patients were divided into two groups: Posterior Epistaxis and Control Group (each of 122 patients). Holter Blood Pressure was performed in all patients, and Blood Pressure follow-up was conducted by the cardiologist each month for 6 months.

RESULTS: Posterior Epistaxis Group patients presented a higher incidence of anterior and posterior epistaxis episodes, and there was a highly significant positive correlation between posterior epistaxis episodes and blood pressure values.

CONCLUSION: High blood pressure values are associated with posterior epistaxis.

ORBITAL COMPLICATIONS IN SINUSITIS

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INTRODUCTION: Acute rhinosinusitis is a very common disorder that at one time or another affects most people. From a temporal standpoint acute rhinosinusitis lasts for up to 4 weeks. *Streptococcus pneumoniae* (20%-45%) and *Haemophilus influenzae* (22%-35%) are the predominant organisms in acute bacterial rhinosinusitis in adults. An external ethmoidectomy is an alternative approach for treating orbital complications of acute rhinosinusitis, such as a subperiosteal abscess. Complications include diplopia from injury to the trochlea or medial rectus, blindness, exposure keratitis, corneal abrasions, skull base injury, and CSF leak.

CASE REPORT: We present the patient V.G. 22 years old with: Left Fronto-Ethmoido-Maxillary Acute Bacterial Rhinosinusitis, Left Subperiosteal Abscess with Exophthalmia, Left Upper Eyelid Abscess, Left Chemosis, Left Lower Eyelid Inflammatory Edema. The blood cultures were negative. The treatment consisted in administration of i.v. broad spectrum antibiotics for 15 days.

We performed a maxillary sinus puncture with lavage (+++) and silicon tube insertion. The patient was addressed for a contrast enhancement CT exam. In ENT Department we performed left external ethmoidectomy, left subperiosteal and upper eyelid abscesses drainage followed by Phenoxymethylpenicillin potassium 2g./day – 7 days. The evolution was favorable with complete remission of the symptoms and signs. One month after the surgical procedure the patient presented a slight left proptosis and a slight divergent strabismus. Control CT exam was performed one month postoperative and showed a normal aeration of the paranasal sinuses.

CONCLUSION: Orbital and nasal signs and symptoms at one month after the surgical procedure were resolved.

KEYWORDS: orbital complication, external ethmoidectomy, subperiosteal abscess, upper eyelid abscess.

ENT PATHOLOGY AND SPEECH DEVELOPMENT IN PRESCHOOL CHILDREN

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Adenotonsillar hypertrophy is often associated with a range of problems. The hypertrophy causes obstruction and has different effects such as chewing disorders, swallowing disorders, word articulation and voice pathology. The objective of this study was to reset the oral motion in children with adenotonsillar hypertrophy. The patients were examined before and 6 months after the surgical intervention (adenoidectomy and total or partial tonsil excision). Equal number of controls were selected to match pre- and post-surgery patients. Majority of the children in the study group presented oral motoric dysfunction before surgery such as: snoring, drooling, open mouth, mastication and swallowing problems. Post-intervention the motoric function of the study group was the same to the control group of patients.

CONSIDERATIONS REGARDING THE NASOPHARYNGEAL BACTERIAL BIOFILM IN PEDIATRIC PATIENTS

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AIMS: The main target of our study is to correlate the ratio of adenoid mucosa contaminated with bacterial biofilm in pediatric patients suffering of chronic rhinosinusitis (RSC) in comparison to pediatric patients diagnosed with obstructive sleep apnea syndrome (OSAS).

METHOD: We have collected the adenoids from all 20 patients included in the study, and sent them for SEM preparation to our microscopy lab. We have estimated using s image analysis program the bacterial biofilm from the entire surface of the extracted adenoids, from 5 girls and 15 boys aged between 4 and 10 years;Results

Adenoids extracted from pediatric patients diagnosed with CRS presented bacterial biofilms coating almost the entire mucosa (77.23%), compared to 2.20% of bacterial biofilm coverage, at the pediatric patients with OSAS. The obtained difference is statistically significant.

CONCLUSION: Polyps removed from patients with CSR have most of their mucosal covered with bacterial biofilm in comparison to the group with OSAS. In the nasopharynx of pediatric patients with CSR, bacterial biofilm can play the role of a chronic fountain of pathogens, adenoidectomy explains the symptomatic improvement observed in this group.

KEYWORDS: bacteria, biofilm, obstructive sleep apnea, chronic rhinosinusitis pediatric

OTITIS MEDIA COMPLICATIONS

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INTRODUCTION: Despite modern treatment options otitis media complications still occur. The purpose of this study is to review our experience and management of otitis media complications.

MATERIALS AND METHODS: This retrospective study was performed in the period from 2009 to June 2017. The study includes patients diagnosed with extracranial, intracranial and intratemporal complications secondary to acute or chronic otitis media.

RESULTS: 19 cases were included in this study. Ages ranged from 4 to 71 years. All patients received surgical treatment followed by broad-spectrum intravenous antibiotics.

CONCLUSION: The combined treatment (broad-spectrum intravenous antibiotics and surgical management) may avoid complication evolution.

KEYWORDS: extracranial complications, intracranial complications, intratemporal complications.

DIAGNOSIS AND TREATMENT CONSIDERATIONS IN CHRONIC ATROPHIC RHINITIS

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Atrophic rhinitis is a chronic, gradually progressing degenerative condition of the nasal cavity characterized by a foul odor (ozena), nasal obstruction, dryness, and crusting.

The diagnosis is based on the clinical examination, case history, endoscopic findings and, where necessary, adjunctive diagnostic measures.

Chronic bacterial infection of the nose or the sinuses has been suggested, in this respect, many organisms have been cited as the cause, including: *Cocobacillus*, *Bacillus mucosus*, *Cocobacillus foetidus* ozaena, *Diphtheroid bacilli*, *Bacillus pertussis*, and *Klebsiella ozaena*. Although it is true that these organisms may be found in cultures, there is little evidence that they cause the disease. Other conditions may include: nutritional deficiencies, endocrine imbalance, developmental disorder resulting in poor pneumatization of antra and wide nose, autonomic imbalance resulting in excessive vasoconstriction.

Initial management of primary atrophic rhinitis is conservative, with nasal ointments, saline irrigation, and antibiotics prescribed to relieve symptoms. However, in cases that show no improvement, a surgical approach is considered.

Surgical treatment aims to reduce the volume of the nasal cavity by turbinate reconstruction, placing synthetic or biological material.

KEYWORDS: Atrophic rhinitis, Chronic bacterial infection , Surgical treatment.

IMPROVEMENT OF THE HEARING AFTER TOTAL MASTOIDECTOMY

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PURPOSE: The importance of maintaining a social hearing in patients with mastoid suppurations.

OBJECTIVES: preservation of anatomical elements responsible for sound transmission and removal of cholesteatomatous and polyps obstacles from the tympanic cavity within one year - 35 cases.

Materials and method: Patients admitted with cholesteatomatous mastoid deficiency with hearing deficiency with audiometric Rinne of 40-50 dB.

RESULTS AND DISCUSSIONS: otomastoidian suppuration old of 20-30 years with osseous chain destroyed totally or partially was the surgical indication. Surgery was performed retroauricularly with removal of the cholesteatoma totally without the tympanum still presenting ankle or hammer residue.

Those who had an audiometric Rinne of 30-40 dB had cholesteatoma removed but retained partial the anvil .

Postoperatively the patients have recovered hearing on an average of 20 dB.

The hearing recovery after the subjective remark was audiometrically checked.

CONCLUSION: Besides the prevention of endothemporal, exocranial, endocranial suppurative complications after the otomastoidian surgical treatment, the functionally audible state of the patients is partially improved.

